

Manufacturers Record

Exponent of America

DECEMBER 9, 1920

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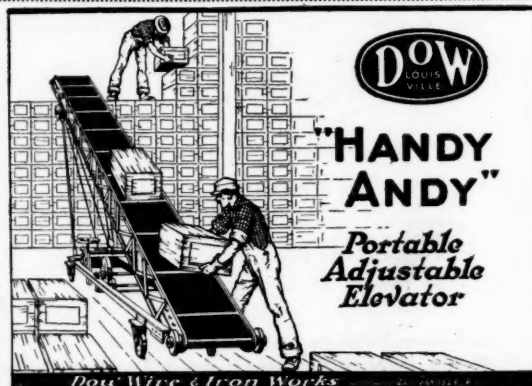
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THE SONG OF THE OPTIMIST.

"Let him sing to me,
Who sees the watchings of the stars above the day,
Who hears the singing of the sunrise
On its way,
Through all the night
Who outfaces skies, outsings the storm."

—From an unknown writer.

This is the spirit which all must cultivate. We must cut through the financial storm, we must hear the singing of the sunrise even while night hovers over us. We must sing a song of optimism in order that pessimism shall not rule the land.

IF EVERYBODY WOULD ADOPT THIS PLAN PROSPERITY WOULD RETURN OVER NIGHT.

Henry, Va., Dec. 4.

Editor Manufacturers Record:

Believing that normal market conditions will not be long in returning, the management of this company has decided to go ahead with their policy of expansion and improve their mill and mine property this winter by installing a Raymond pulverizing system in the mill, and the purchase of a number of 3-Yd. V type rocker dump cars and a 6 or 8 ton gasoline locomotive for hauling mine run rock from mine to mill on their 36-inch gauge railway.

Raymond Mill been purchased, but we are in the market for the cars and gasoline locomotive.

Yours truly,

BLUE RIDGE TALC COMPANY, INC.,
C. O. KITSON, Secretary and Treasurer.

Forward, March!

THREE hundred years ago—in December, 1620—a little group of Pilgrims landed on Plymouth Rock. They were few in number; of worldly goods they had almost none. They had expected to settle in the territory controlled by the Virginia Company, and had a patent from that company for the land on which they were to locate, but after a stormy voyage the little vessel was driven toward the inhospitable coast of Massachusetts.

These Pilgrims, though outfitted only for a warm climate, were forced to land in mid-winter on the bleak and cold and dreary New England shore. There were no houses, no villages, no place in which to live, and no place where provisions could be had. They were in constant danger of famine and attacks by the Indians.

With unquenchable energy they sought to meet the hardships to which the storms had driven them, but before the winter had passed 51 of the 100 colonists had died, leaving only about 50, counting men, women and children.

Their struggles and their hardships are a part of the story of American life; indeed, part of the great story of human history. It is difficult for us to visualize what it meant for a little colony, starting with only 100, and half of those dying during the first few months, meeting the bitter weather of New England, building such shacks and huts as they might construct out of the materials available, finding food and meeting the constant dangers of massacre from the Indians.

But these were the conditions which the little group of 50 men, women and children fared through the winter of 1620-1621. Out of their experience and their achievements this country may well learn a lesson. Their sufferings and their accomplishment put to shame all of the sufferings which are being endured today by the farmers and the business men of the country. In a study of what they endured and the manhood and womanhood which they displayed the people of this country may well learn a lesson and catch an inspiration which will enable us to put behind us all of the losses and hardships brought on by the unwise action of the Federal Reserve Board, which has resulted in the disastrous deflation of farm product prices, and of the sufferings which the unemployed must endure, and the losses which all business men must meet. However great may be the depression among

the farmers and the business men, however hard may be the trials of those thrown out of employment, how little do these things count in comparison with the struggles and privations and the deaths of that little group of Pilgrims headed for Virginia, but driven ashore on the coast of Massachusetts in the dead of winter! How little do we as a nation seem to be accomplishing as compared to the mighty work which under such adverse conditions they achieved!

We now have a country of 105,000,000 people, the best fed, the best clothed, the best housed in all the world, with a foundation for business unmatched in any other land. Nature has been more than lavish, and has poured out a wealth of fruits and grains and other products of the farm. We have more than enough for our needs, and, great as may be the losses of the producers, there is some compensation to the country at large in that the consumers will be able to fill their needs at a lower cost. There are losses on one side and some compensations on the other. The losses are hard to bear, but how small are they when contrasted against the background of desperate poverty, the deaths and the sufferings of the Pilgrims of New England, who laid the foundation for much of the civilization of this country and helped to shape the civilization for all the world for all time to come!

The 105,000,000 people in America must eat; must travel, by train and by automobile; must be clothed, must build roads, must build houses and carry on a work which can never cease, though the activity at times may be less than in other periods. The nation is moving forward. It cannot stop. It has had a hard blow, but if the people of the country will catch new inspiration from the story of what others have done, they will "grin and bear" their losses as best they can. They will take a fresh start and determine that, however much they have had to endure in the way of privation and of financial losses, they will work harder to recoup and once more put themselves on solid ground.

The business men and the farmers alike who have had to endure losses have all the more reason for working harder than while they were enjoying abounding prosperity. The laboring man thrown out of a job needs to show greater efficiency and more energy in his work in order that he may regain his footing and be better prepared than ever to care for his family.

Great prosperity sometimes breeds indifference and wastefulness; hardships often strengthen the moral muscle of a man and quicken his energy into greater activity.

We are not at all unmindful of what the country has had to stand, but we long ago learned that the man who loses money or wealth loses still more if he gives way to pessimism and depression, while if he grins and bears his losses with a quickened energy and a smiling face he will the sooner get back on his feet. Many a man has won out from threatened bankruptcy merely by grinning and bearing and never letting his friends know the privation which he was enduring. The whole country needs just now to quicken its spirit, to bestir

its energies and to determine that prosperity is within its power, and it will win prosperity regardless of the blunders that may be made by financiers and those who have led us into this depression.

We have boundless resources in minerals and soil, in oils and gas and granites and a thousand and one other things on which to build a prosperity greater than the world has ever known. If we have the virility and the energy and the backbone of the men and women who, forced by storms to the ice-bound shores of New England, never lost heart, but on their adversity built a wonderful civilization, this country will go forward into greater prosperity. The man who whimpers because he has been hurt financially, the man who loses heart because the sunshine of prosperity has been hid by the storms of adversity, is not the kind of a man this country ought to breed.

In the South pre-eminently should be found the spirit which can never be broken by hardship. For two generations this section has known hardship. It has known what it meant to struggle against overwhelming disaster of war and of the Reconstruction period. It has bred men of virility, of dogged determination, men of vision and initiative. It remains to be seen whether the men of the present day are worthy sons of the worthy sires who met and overcame difficulties a thousand times greater than those which the South faces today. What are all of our trials and hardships and losses of the last few months as compared with the days when from 1861 to 1876 the South was living in that condition described by Sherman, but surpassing possibly even Sherman's descriptive powers? For not only was war hell, but the Reconstruction period of 10 years was the undermost part of hell. It was a period during which Anglo-Saxon civilization had to be saved from odds so great that no man could safely say what would be the outcome. But the South weathered the storm; it saved Anglo-Saxon civilization; it reorganized its State and city governments, and it went to work with that same tireless energy with which its ragged, tattered, barefooted soldiers, often days without food, met the terrific struggle in the far-flung battle line from Maryland to Texas. The spirit of these men was never crushed. The spirit of the South rose superior to the sufferings of that 15-year period from 1861 to 1876. The South has met other periods of hardship. It faced them bravely, and out of the nettle of poverty it plucked the flower of prosperity.

The story is told that when Napoleon was once hard pressed and felt that the battle had been lost, he told a drummer boy to beat the retreat, but the drummer boy replied: "Sire, I have never learned to beat the retreat, but I can sound a charge which will make the dead arise and fight," and he beat that charge with such tremendous energy and such inspiring zeal that Napoleon's almost defeated soldiers gathered fresh courage and won the great battle.

The South must sound the charge; it has not learned to beat retreat.

Forward, march!

The Evidence in the Case

ON December 3 Governor Harding of the Federal Reserve Board testified before the Senate Committee on Agriculture. We quote from a transcript of the testimony:

Representative Byrnes—Has your attention been called to a recent issue of the MANUFACTURERS RECORD, a copy of which was sent, I suppose, to every member of the House and Senate, which shows on the first page the instructions from the Federal Reserve Board to the banks to curtail credit? My memory is that there are several bulletins, and it would create the impression that they must curtail credits.

Governor Harding—I have not seen that.

Representative Byrnes—Well, were such bulletins ever issued?

Governor Harding—I suppose what you refer to—there are some disconnected extracts leaving out the essential parts.

Representative Byrnes—They are extracts, yes.

Here the testimony was led into other lines, and it was not until late in the afternoon that Representative Byrnes was able again to resume his inquiry. Mr. Byrnes began by saying that after listening to Governor Harding he "would be led to believe that conditions were all right if I had not recently come from my own home where I found they were not all right. When I find a man whose credit is unimpeachable, who is worth more than \$200,000, a farmer and a business man who has more than \$25,000 of Liberty Bonds to offer as collateral for a loan, a director in a bank, and he is unable to borrow \$5000 from any one of four banks in the city, and he comes to me as a friend, asking me to help him locate some individual who has money, it is a serious condition indeed."

After some further questions, Governor Harding said:

"I should say if they (the banks) have turned down an application of a loan for \$5000 under the circumstances you have described, with all that security, that, to put it mildly, they must be in a very nervous frame of mind."

Mr. Byrnes—The statement is that they have no money. You say it is not due to the Federal Reserve Board.

Governor Harding—Yes.

Mr. Byrnes—Here is the thought I have in mind. You may be entirely sincere in your statement, but I am wondering whether or not the member banks have not become nervous because of the various orders issued, or bulletins issued, to which I referred this morning.

Governor Harding—There is nothing in those bulletins that should cause nervousness.

Mr. Byrnes—I want to read from the MANUFACTURERS RECORD for November, and ask whether or not you think these various statements were made in any bulletins that were issued by you. They state: "In circular-letter No. 94, issued on December 20, 1919, to all member banks, the Federal Reserve Bank of Richmond said: 'Our present task, therefore, is to proceed with the deflation of credits as rapidly and systematically as possible.'"

Governor Harding—On December 20, 1919, I think that was excellent advice, etc.

The hearing then developed the fact that each of the Federal Reserve Banks was accustomed to send out its own circulars, which did not necessarily reflect the policy and views of the Federal Reserve Board. Mr. Byrnes wanted to know if the Board could always tell what circulars the regional banks were issuing.

Governor Harding—I can, because we get a copy of all letters which are issued by the Federal Reserve Banks, but we do not get advance copies. We know what their policies are. We cannot treat these men and officers, who have had long experience in banking administration, as though they were school boys. They have certain rights and powers given them by Congress, just as Congress has delegated to the Federal Reserve Board certain rights and powers. But certainly I do not think anyone would expect that the

officer of a Federal Reserve Bank would either have to stop or consider the Federal Reserve Board before he could write some bank that borrowed money or send him a circular. Those were merely isolated extracts from a circular meant to prove a certain case. He does not relate them to the full body of the circular at all. You can take any kind of a recommendation and prove most anything if you want to use mutilated sentences. I want to let you know, if you do not already know it, that that particular periodical for more than 12 months has been exceedingly bitter toward the Federal Reserve Board and its policies.

Mr. Byrnes—I know that it has.

Governor Harding—And it has done everything it possibly could to excite distrust and fear in the general situation. It does not give any facts or figures; it just merely makes bare assertions. It will print anything. If anybody wants to abuse the Federal Reserve System or Board, it will send its material to that paper, which will play it up in box-type letters.

Mr. Byrnes—I agree with you, and for more than 12 months I have been taking exception to everything it writes, and I only quote it when it cites dates and circulars.

Governor Harding—But they do not give all the circular letters.

Mr. Byrnes—They do in another issue.

Mr. Harding—I am quite sure that any fair-minded committee which is interested in these things certainly would not want to pass judgment on just a few quips of that nature, but would want to see the whole contents of the circulars, and if you do I will send them up here.

Mr. Byrnes—Then you take the position that your Board is not responsible for those circulars?

Governor Harding—I take the position that our Board is not cognizant of the circulars before issued. We see them as they are issued, etc. (Governor Harding went on to point out that if circulars seemed to be unwise, the Board called the attention of the issuing Reserve Bank to that fact.)

Mr. Byrnes—Have you tried to correct anything issued in any one of these orders?

Governor Harding—No; we did not.

Mr. Byrnes—Then, so far as that is concerned, the Board did approve of these policies?

Governor Harding—The Board never affirmatively approved one way or the other. They are merely on file.

Mr. Byrnes—You have stated that if there is any statement embodied in the circular letters to which you objected, you would correct it, did you not?

Governor Harding—May I ask you what this hearing is for? Am I on trial, or is the Federal Reserve Board on trial, or am I here to give certain information?

(Senator Norris interposed to explain that the Congressman did not mean to ask questions reflecting on Governor Harding.)

Governor Harding—But you are quoting from a publication here which has been notoriously unfriendly and hostile to the Federal Reserve Board. You are reading certain isolated extracts of circulars sent out at various times by the Federal Reserve Bank of Richmond.

Senator Norris—If the claim is made that these quotations are unfair and that the whole circular would give a different meaning to it, I would be glad to have the entire circular-letters incorporated in the record.

Governor Harding—I do not care to have them incorporated.

Senator Norris—I do not think the committee cares for them.

It was further claimed by Governor Harding that if the MANUFACTURERS RECORD had not quoted from the Richmond Bank circulars very few people would ever have heard of them. Mr. Byrnes replied that he had disagreed with everything the MANUFACTURERS RECORD had said, "but when a man produces documents I want an answer to them, and I think

you have a right to say whether you issued them or whether they were issued with your approval."

This concluded this phase of the hearing, except that the following is of importance:

Representative Heflin—Are we authorized by your position in the matter of lending money on farm products by local banks backed by regional banks in the Federal Reserve System to give out a statement that you and the Federal Reserve Board do not oppose, but encourage, regional banks in giving the fullest aid possible to farmers in handling their crops so as to enable them to obtain a living profit for their farm products?

Governor Harding—The Federal Reserve Bank always prefers to make its own statements.

The testimony quoted above conclusively shows that the Federal Reserve Board was acquainted with what the Richmond Reserve Bank was doing and did approve its acts. Moreover, it had been called to the personal attention of Governor Harding early in December, 1919, that the Richmond Bank was curtailing cotton loans, and the whole situation was very vividly in his mind.

It is incumbent on us to say that the quotations from circulars referred to were not only accurate in every detail of text, but that they unerringly and truly portrayed the policy of the Richmond Bank, and, therefore, of the Federal Reserve Board, and all bankers who received the circulars knew what they meant, and most of them took action accordingly. No sentences were mutilated. Governor Harding did not, will not and cannot deny that they accurately pictured the policy of the Richmond Reserve Bank. The circulars in full are on file; anybody can read them. The record speaks for itself. Moreover, the insistence by banks in the Richmond and other districts on heavy loan repayments at this time and in the past few months shows that even with commodities at their present low prices, the securing of loans is difficult. Moreover, the Richmond Bank policy was distinctly the Federal Reserve policy, because it was noted by at least one member of the Board, who stated in private letters, written last winter that the banks ought to be forced to call in their cotton loans and that 25 cents a pound was the maximum loaning limit to be considered in any case.

We do not find in Governor Harding's testimony anywhere a direct statement that there has been no deflation policy. We have noted a tendency on the part of him and Secretary Houston, since the former's Cleveland speech, to quote statistics to prove that there has been no curtailment of credit. There is but one answer to that claim. Let any man who reads this ask himself what his own personal experience at the banks has been. It would be easy enough to print the names of thousands of business men who have been, and are now, unable to secure credit for legitimate business enterprises. Moreover, if the fiscal authorities were not in fact deflating, they were guilty of a high crime in distributing propaganda which said that they were deflating and that the bottom must be knocked out of prices. Has not the Comptroller of the Currency stated that two billions in additional credit could be given without improperly impairing the reserve? And Governor Harding himself testifies that a number of banks are not now borrowing any money at all from the Reserve System.

In view of the charge of Governor Harding that we have dealt only in generalities, despite the fact that he was at the moment being called on by Mr. Byrnes to answer very specific documentary evidence, it may be proper to quote from Governor Harding's own statements, wherein there is a wealth of specification.

There was given to the press on August 9, 1919, copies of a letter sent to Senator McLean, Chairman of the Senate Committee on Banking and Finance, by Governor Harding

officially in behalf of the Federal Reserve Board. We take from it these extracts:

"The banks are lending AND WILL ALWAYS LEND circulation an excessive volume of Federal Reserve notes should be understood. * * * The increased volume of Federal Reserve notes in circulation during the last three years, in so far as it is not the result of direct exchanges for gold and gold certificates which have been withdrawn from circulation, is the effect of advancing wages and prices, and not their cause.

"The Federal Reserve Board believes that any currency FREELY on Government bonds as collateral.

The Federal Reserve Board believes that any currency legislation at this time is unnecessary and undesirable, and would suggest that whether viewed from an economic or financial standpoint, the remedy for the present situation is the same, namely, to work and to save; to work regularly and efficiently in order to produce and distribute the largest possible volume of commodities; and to exercise reasonable economies in order that money, goods and services may be devoted primarily to the liquidation of debt and to the satisfaction of the demand for necessities, rather than to indulgence in extravagance or the gratification of a desire for luxuries."

November 3, 1919, the New York Reserve Bank announced an increase in rediscount rates, which the newspapers described as a move "to deflate credit," but on November 11 Governor Harding and Albert Straus, then a member of the Board, conferred with New York financiers on the credit situation and denied rumors of drastic action by the Board.

On January 6, at a bankers' conference in Washington, Governor Harding predicted an increase in rediscount rates, but added: "In ordinary times a raise in rediscount rates is the natural corrective of undue expansion, but now we cannot add to our gold holdings by raising rates, nor must we do anything to discourage production."

January 17 the New York Reserve Bank issued instructions to member banks to curtail credits and reduce loans, and the newspapers reported that similar instructions would be given in the other 11 districts. The New York Times reported in its financial columns that the break in the November stock market had met with the "entire satisfaction" of the Reserve Board, and quoted a banker as declaring that when confronted with the necessity of stopping gold exports or contracting loans, the Federal Reserve Board favored the latter. Moreover, said the Times, "the contraction of loans is expected to have wide-spread results. Contrary to a general impression, the local banks are not unduly committed to stock-market loans. Most of them have vastly more out in other directions, such as advances upon commodities and on goods destined for shipment abroad. Some of the large banks have many millions tied up in bills of exchange. All of these things will have to be liquidated."

On January 22 formal notice was given in New York of the increase in the rediscount rate to 6 per cent for commercial paper, and the rate, with Liberty Bonds as collateral, went up to 5½ per cent.

On August 9 Governor Harding had stated officially that "the banks are lending and will always lend freely" on Government bonds as collateral. On January 22 a prohibitive rate on loans based on such collateral was made effective. That did not give the appearance of "lending freely." Furthermore, the word was passed along to get the war bonds out of the banks. As to whether this is true or not, let our readers decide for themselves. They do not have to get information from Governor Harding or the Federal Reserve Board. They began to get it last winter from their own bankers. And at that time one of the leading bankers in Baltimore wrote to the editor of this newspaper as follows:

"You can further see that if by any pressure these bonds

can be turned out of the Federal Reserve banks and passed over to the strong boxes of great institutions, savings banks, life insurance companies, large estates, benevolent and philanthropic institutions, etc., just to that extent the 12 banks would be in a position to extend additional facilities to merchants and business men generally. Of course, it seems hard for anyone who, for patriotic purposes, should have invested in Government bonds should be practically called upon to part with, say, a loss from 8 to 9 per cent (such being my personal experience). But facts are stubborn things and conditions more important than theories."

That was the position of one of the foremost bankers of the South, and it is notorious that it was the position also of Treasury officials.

The total indebtedness on all bonds and notes of the United States now is about \$25,000,000,000. Governor Harding says that every dollar of that amount "is eligible without rediscount at the Federal Reserve Bank." Quite so, according to the law, and a year ago, according to the annual report of the Federal Reserve Board, 69 per cent of loans and discounts were based on Government securities. Commercial paper rediscounts passed the war paper bills in the Reserve banks on June 30, 1920, and on September 16, at Charleston, W. Va., Vice-Governor Edmund Platt of the Federal Reserve Board, stated that "apparently about \$16,000,000,000 of Liberty Bonds and Victory Notes have been actually paid for and are out of the banks, a really stupendous achievement."

So it was, but hardly satisfactory to the Reserve Board, which continued to take the position that digestion of the enormous war issues must be virtually immediate. We find Mr. Platt, for instance, quoting from a Board report: "In order that the member banks might carry the burden of undigested Government securities they were obliged to rediscount with the Federal Reserve banks, and in order that such rediscounting should not involve them in heavy loss, it was essential that as long as the banks were lending to bond subscribers at coupon rates the rediscount rate should be related to the bond rates. The rediscount rates of the Federal Reserve banks, therefore, instead of being higher than the market rates, as in theory and normal practice they should have been, were made lower than the market rates." Mr. Platt then commented that "this enforced departure from sound banking principles necessarily led to enormous expansion of credit or inflation, if you prefer that term, and the problem has been ever since how to get away from it." And we find Governor Harding testifying last Friday that "the Federal Reserve Board adopted a policy for war financing that was economically unsound. I am perfectly frank to say that." But he says the Board was not responsible for it. The idea seems to be that bonds were sold under false pretenses as to their standing as collateral.

The solution decreed by the Federal Reserve Board was to drive Government securities out of the banks by excessive interest charges and a general attitude of hostility, as well as by depriving them of their par standing as securities. The definite and absolute promise, therefore, of Governor Harding that the banks would always lend "freely" on Government securities was not fulfilled, but was repudiated. Because of that repudiation there has been and is credit stringency. A vast capital which ought to have been freely available for productive enterprise is not freely available.

Governor Harding will not deny, and Secretary Houston will not deny, that it was and is the policy of the Board not to encourage the banks to lend freely on Government bonds as collateral, but that the understanding is, on the contrary, to frown on them as security and to make it unprofitable so to use them.

Governor Harding has talked about the price recessions

being world-wide. Of course they are. The United States happened to be the only first-class nation fully solvent. Industrial depression here meant industrial depression everywhere. We quote from an editorial which we published on February 5:

"It is dangerous to criticise the money-issuing authority of the nation. We know that, and it is with great regret that we feel compelled to do so. But when we see the Board engaged in a deliberate attempt to contract the financial resources of the country at a time when the demand for capital is overwhelming and embark on a policy of deflation that, sooner or later, must bring about hard times and panicky conditions, criticism becomes not only wise, but absolutely essential. It is no time to play with fire or disaster. Vast as the resources of the rest of the world are, the fact remains that the United States temporarily is the keystone of the temple of solvency.

"The course which the Board is pursuing, in the opinion of many men whose profession is finance, will result in commercial panic and an industrial smash such as neither this country nor the world has ever before experienced.

"We are aware, of course, that the Board emphatically declares that it wants to hurt no business, and is after only the speculators, but its bullets nevertheless carry no addresses. They are fired indiscriminately into the crowd."

Undoubtedly, the Board felt that it could carry deflation just so far and then call a halt. This is plainly indicated by Governor Harding when in his testimony last Friday he said: "We have realized the desirability, if possible, of working the situation out and bringing credits down to a more normal basis, with as little disturbance to the agricultural industry and business as possible. And up to the middle of September it looked as though we were going to succeed." They thought they could stop the avalanche after starting it, and in September they found they could not. They discovered in September what sane economists were telling them in January.

Moreover, it is absurd to try to make it appear that the MANUFACTURERS RECORD has ever favored inflation. We knew that the world had been through a major financial operation and must convalesce slowly. So did Governor Harding know it, and repeatedly he said so. But it was readily apparent months ago that the deflation was not being proceeded with slowly, but rapidly and crudely, in a manner devised to wreck the markets not only of the United States, but of the world. That is what we warned against. Present conditions are the jury. They tell whether we were right or wrong. Any business man can decide for himself whether the convalescence has been slow or fast. No comment from us is necessary. If there has been no deflation, men will wonder what kind of cataclysm real deflation would be. Could it be worse than what has happened?

A true report was widely disseminated to the effect that Governor Harding testified that the Reserve banks had not earned a profit of more than 150 per cent, but that their real earnings were not more than 6.9 per cent. In its last annual report to Congress the Board sought to excuse the high earnings of the regional banks on the ground of abnormal war and post-war conditions and said "the net earnings in future are likely to be very much smaller." They have been very much larger. The net profits on paid-in capital for the first six months of 1919 were at the rate of 92 per cent per annum. The net profits for the first six months of 1920 were at the rate of 151.2 per cent per annum, or \$68,583,111 for the half year. Heretofore it has been customary to excuse this profiteering by pointing out that after the regional banks have built up a 100 per cent surplus, the most of the profits are turned into the United States Treasury.

But now a new scheme to overcome the charge of profiteering has been discovered. Governor Harding says that if profits are calculated not on capital stock, but on capital stock and reserve balances combined, the profit instead of being 151.2 per cent would be only 6.9 per cent. The reserve balances are really the deposits carried by member banks. That is why Senator Norris commented, "Governor, I do not think

you have given a fair illustration. These banks have got to make their deposits somewhere, and the law provides making them in the Federal Reserve banks." The banks get the benefit out of those deposits, of course.

We take up the matter at all only because it illustrates the extraordinary use of figures and technical jargon employed by the fiscal authorities to deceive the public, confuse the people as to the facts and otherwise render intricate things that naturally are simple. No bank calculates its earnings on its deposits as a basis, of course. The theory that the Federal Reserve banks should do so is, to put it mildly, naive. Others might just call it evasiveness. Anyhow, there is no getting around the fact that the profits of the reserve banks for the first six months of this year were, in dollars, 68,583,111, and in its last annual report the Reserve Board seemed to be ashamed to acknowledge profiteering less than that, but did so with an explanation that it would never happen again. The new method of figuring had not then been invented.

The stagnation in world business which we foresaw would inevitably result from the destructive and restrictive policy of the Federal Reserve Board has happened. That Congress is no longer interested in excuses and the poverty-stricken resourcelessness of officials who in one of the greatest crises the nation has witnessed twirl their thumbs and say they know not what can be done, is evidenced by the fact that after hearing all Secretary Houston and Governor Harding had to say, the Senate Committee on Agriculture voted to introduce and ask for the immediate consideration of a joint resolution directing the Secretary of the Treasury to revive the War Finance Corporation and calling on the Reserve Board to use its powers to help agriculture. Members of Congress are not deceived. They know. They are just back from home, and they have seen for themselves that the Board's policy has been an insensate drive against prices and a flirtation with bankruptcy.

Mr. Byrnes, who was so careful to say that he had disagreed with everything the MANUFACTURERS RECORD had printed during the last twelve months, returned to the House and introduced a concurrent resolution providing for the revival of the War Finance Corporation and enthusiastically endorses, we understand, the general proposals for relieving the situation. It would appear that his disagreement with us takes the form of hearty advocacy of what we have suggested and stood for. It is pleasing to have a public servant disregard his likes or dislikes in order to do what is right.

HOW THE WOOL MARKET WAS BROKEN AND THE PRODUCERS IMPOVERISHED.

IT so happened that just about the time the wool clip was coming on last May, getting ready for market, and the Eastern buyers had their men in the field, that there were large importations of wool from Australia and the Argentine, and our own War Department had large stocks of wool, which it sold at auction, and the British Government had large stocks also on the auction market. The result was that the market for wool was obliterated over night. The wool men in the East telegraphed agents in the West to come home; that they did not want any wool.

That is not our statement of fact. It comes from the lips of Governor Harding of the Federal Reserve Bank, who is fully acquainted with what happened. At just the moment when the crop was coming to market the Government dumped its own surplus on the market, permitted the British Government to have wool auction sales in Boston and countenanced heavy import dumpings from Australia and the Argentine. No wonder the market broke! No wonder that in the wool-producing sections the November election became a mere census. And yet some people maintain that Government policies have nothing to do with prices.

BURNING CORN FOR FUEL A SIGN OF DANGER.

IN some parts of the West where corn is selling at less than cost of production, and fuel is selling at a very high price with a very great profit to the producers, farmers are burning corn for fuel in place of coal. Dr. H. C. Taylor, chief of the Office of Farm Management and Farm Economics, United States Department of Agriculture, says however "deplorable the burning of corn for fuel may be, it can always be expected that when the price of corn goes so low that it will not buy its equivalent in commercial fuel farmers will burn the corn." They must have fuel, and if the corn which they have raised produces more heat at less cost than the coal which is very difficult to secure at any price, then it is natural that the farmer burns that which gives him the largest amount of heat for the least cost.

Some may say that this is destruction of a very valuable food product. We grant that that is true. But the individual farmer has a perfect right to keep his family warm by burning corn when he cannot secure coal; and what the individual farmer has a moral right to do, thousands and tens of thousands of farmers have the same moral right to do. Farmers are patriotic and law-abiding people, but when the power of the United States Government breaks down the prices of farm products the ultimate result will be a decline in production of foodstuffs, and eventually higher prices and increasing scarcity. Dr. Taylor commenting on this situation, says:

"If the rest of the nation fails to appreciate the necessity of farm prices having a satisfactory ratio to other prices, farmers may be forced to retrench to save their homes and protect their families."

All that the farmers of this country need to do to secure larger profits for themselves is to follow the example of manufacturers and of laboring men. When the manufacturer cannot run his plant to full capacity and earn a fair profit he reduces his output, and necessarily so if he wants to keep out of bankruptcy. When an industrial worker finds that he cannot maintain his family on the wages he has been receiving he demands a higher rate of pay and usually gets it. In order to enforce his demands he goes on a strike, and thus lessens the productivity of the country until he wins out for his higher demand, or until his own poverty forces him back to work again. He decreases his hours of work under the teaching of the national administration, which proclaims eight hours as the basis of time for industrial workers. All that the farmer has to do is to follow the example of these people. If instead of cultivating as much land as he can possibly work, he lessens his labors, reduces his acreage, and thus joins in a campaign to bring production of all farm products down to a basis at which the country will pay him a profit for his output, he does less work, cultivates less land and makes more money. Is it conceivable that the farmer, long suffering as he has been, working from early dawn until long after dark, is going much longer to put up with the conditions under which he has labored in the past, while he sees that operating on an entirely different basis the manufacturers and the industrial workers secure more profitable results for their efforts?

For years we have warned the union labor interests of the country that their scheme for cutting down the hours of labor would ultimately be taken as a lesson by the farmers and would bring about a great decrease in the production of foodstuffs. We have warned the National Government for years that the efforts of the Government to make unprofitable the prices of farm products in order to satisfy the desire for cheap food of the city consumers, would in the end prove disastrous to the nation. When Kansas burns corn for fuel we may know that there is something economically wrong in the entire situation, and the nation should take warning.

THE RELIGIOUS AFFILIATIONS OF MEMBERS OF THE LEAGUE OF NATIONS.

IN reply to an inquiry as to the members of the League of Nations and their religious affiliations, we make use of the official lists furnished by the Department of State as of October 7. The religious categories are of common knowledge, and have been gathered from various sources.

Ratification of the Treaty of Versailles.

The complete list of signatories which have deposited their ratifications at Paris follows:

Belgium (Catholic).	
Bolivia (Catholic).	
Brazil (Catholic).	
British Empire (Protestant).	
Canada (Protestant).	
Australia (Protestant).	
South Africa (Protestant).	
New Zealand (Protestant).	
India (Brahman).	
Cuba (Catholic).	
Czecho-Slovakia (Catholic).	
France (Catholic).	
Greece (Greek Orthodox).	
Guatemala (Catholic).	
Haiti (Catholic).	
Italy (Catholic).	
Japan (Shinto).	
Jugo-Slavia (Serbs, Croats and Slovenes) (Catholic and Greek Orthodox).	
Liberia.	
Peru (Catholic).	
Poland (Catholic).	
Portugal (Catholic).	
Roumania (Catholic).	
Siam (Buddhist).	
Uruguay (Catholic).	
Germany (Protestant).	
Catholic	15
Protestant	6
Shinto	1
Buddhist	1
Greek Orthodox	1
Brahman	1

Membership of the League of Nations.

The list of members as given in a communication from the League Secretariat at London and forwarded to the State Department for the information follows:

ORIGINAL MEMBERS.

Members.	Date of Accession.
Great Britain* (Protestant).....	January 10, 1920
France (Catholic).....	January 10, 1920
Italy (Catholic).....	January 10, 1920
Japan (Shinto).....	January 10, 1920
Belgium (Catholic).....	January 10, 1920
Bolivia (Catholic).....	January 10, 1920
Brazil (Catholic).....	January 10, 1920
China† (Buddhist).....	July 16, 1920
Cuba (Catholic).....	March 8, 1920
Greece (Greek Orthodox).....	March 30, 1920
Guatemala (Catholic).....	January 10, 1920
Haiti (Catholic).....	June 30, 1920
Liberia.....	June 30, 1920
Peru (Catholic).....	January 10, 1920
Poland (Catholic).....	January 10, 1920
Portugal (Catholic).....	April 8, 1920
Kingdom of the Serbs, Croats and Slovenes (Jugo-Slavia) (Catholic and Greek Orthodox).....	February 10, 1920
Roumania (Catholic).....	September 14, 1920
Siam (Buddhist).....	January 10, 1920
Czecho-Slovakia (Catholic).....	January 10, 1920
Uruguay (Catholic).....	January 10, 1920
Catholic	15
Protestant (Great Britain).....	5
Shinto	1
Brahman	1
Buddhist	2
Greek Orthodox	1

*Including Canada, Australia, South Africa, New Zealand and India.
†By ratification of Austrian Treaty.

INVITED MEMBERS.

Argentine Republic (Catholic).....	July 18, 1920
Chile (Catholic).....	November 4, 1919
Colombia (Catholic).....	February 16, 1920
Denmark (Protestant).....	March 8, 1920
Netherlands (Protestant).....	March 9, 1920
Norway (Protestant).....	March 5, 1920
Paraguay (Catholic).....	December 26, 1919

Persia (Mohammedan).....	November 21, 1919
Salvador (Catholic).....	March 10, 1920
Spain (Catholic).....	January 20, 1920
Sweden (Protestant).....	March 9, 1920
Switzerland (Protestant).....	March 8, 1920
Venezuela (Catholic).....	March 3, 1920

Catholic	7	Mohammedan	1
Protestant	5		

REQUESTS FOR ADMISSION TO LEAGUE.

The following, not mentioned in the Annex to the Covenant of the League, have submitted requests for admission to the League on the dates given:

	Date of Request for Admission.
Estonia (Russian Orthodox).....	April 10, 1920
Finland (Protestant).....	May 8, 1920
Georgia (Greek Orthodox).....	May 21, 1919
Iceland (Protestant).....	July 2, 1919
Latvia (Russian Orthodox).....	May 14, 1920
Luxemburg (Protestant).....	February 23, 1920
Monaco (Catholic).....	May 3, 1920
San Marino (Catholic).....	April 23, 1919
Ukraine (Russian Orthodox).....	February 25, 1920
Costa Rica (Catholic).....	September 14, 1920
Armenia (Greek Orthodox and Catholic).....	May 13, 1920
Liechtenstein (Protestant).....	July 15, 1920
Bulgaria (unofficially) (Greek Orthodox).....	September 2, 1920

Catholic	3	Greek Orthodox	2
Protestant	4	Russian Orthodox	2

This list is given merely as a matter of news as to the countries in the League and those invited to join and their dominant religious views.

A year ago the Interchurch World Movement was being lauded by tens of thousands of ministers throughout this country who claimed it to be the greatest movement that had been made in centuries for the advancement of Christianity. The newspapers were full of the story of what the Interchurch Movement meant for bringing all of the Protestant denominations of this country into united organization for what was claimed to be more effective work, but there were many men who did not see in the Interchurch World Movement the possibilities of good which its proponents claimed for it. We believe that the Southern Baptist Convention was the first religious body which, after listening carefully to all the arguments in favor of the Interchurch World Movement, unanimously voted against entering that body. The Southern Baptists took the ground that to become members of the Interchurch World Movement would lessen the individuality of their own denomination, and they held that they had a distinct mission in the world which they could not in good conscience yield in any respect by entering into an organization representing all of the Protestant denominations.

Great Baptist leaders such as Dr. George W. Truett of Texas, Dr. James Bruton Gambrill, president of the Southern Baptist Convention; Dr. J. F. Love, Dr. B. D. Gray and other noted Baptist leaders of the South were very aggressive in their opposition to the Interchurch World Movement on the ground that to enter that body would lessen the individuality of their denomination and minimize its particular work. Bishop Candler of the Methodist Church South was also one of the distinctive leaders on behalf of the Methodists against the Interchurch World Movement. And, one by one, other denominations which at first were reported as enthusiastic for the Interchurch World Movement withdrew, and that organization, which, if it had succeeded in its plans, would have become the most autocratic ecclesiastical power in the world's history went on the rocks, owing about \$9,000,000 of borrowed money which had been used for promotion and propaganda work.

It was based on assumed idealism, which had a foundation as substantial as the sand. It had in it elements of great danger to the religious work of the country, and yet most

of the men who proposed it and who enthusiastically advocated it are counted as among the great religious leaders of America, and were absolutely sincere in their belief that it was a wonderful scheme for good.

Many of those who opposed this organization, like Dr. Truett, Dr. Gambrill, Dr. Love and others, have been enthusiastic advocates of a League of Nations, though they could not believe in a league of Protestant denominations. They thought that the League of Nations, composed of Mohammedans, Buddhists, heathens, Catholics, Protestants and every other variety of human thought in religion, could work harmoniously and not destroy the individuality and the sovereignty of this country, when they could not possibly believe that 30 Protestant denominations, all serving the same Cause, all composed of Christian English-speaking people, all having friendly interests and all equally patriotic, could work together for the good of the cause they represented. We have never seen greater inconsistency on the part of leading men than that of those who opposed the Interchurch World Movement because it would destroy the individuality of their denomination and yet could favor the League of Nations with its conglomeration of Christian denominations and heathen, and who did not see that its success would create the greatest autocratic power which the world has ever known and completely destroy the sovereignty of this country if we entered it on the basis of the covenant as brought back to this country by President Wilson. From the beginning of its organization the MANUFACTURERS RECORD regarded the Interchurch Movement as an idealistic dream without excuse for existence, and later on it was found that rank Socialists were on the inside, using it for their own aims and "boring from within." Its failure was a blessing to true religious work. Our views on the League of Nations have been the same, and we expect to see a similar "inside boring" and a similar failure of a house built upon a foundation of sand.

The foregoing was written two weeks ago. The bickerings and threatened withdrawals from the League, which fill dispatches from Geneva, only serve to show how fortunate is the United States in not being tied up in such a covenant. The quarrels already in evidence at Geneva show the impossibility of bringing peace to the world through the League as now constituted.

THE SOUTH AS SEEN IN BOSTON.

IN publishing some recent statements as to industrial development work under way in the South, taken from the MANUFACTURERS RECORD, the Boston Transcript, one of the best of all of New England's daily papers, pays the following tribute to the South:

"The spirit of the new South was exhibited by the party of Georgians who visited Boston recently for the purpose of studying means of increasing science's aid to industry. The enterprise and the energy which mark the industrial world of the South of today are further in evidence in reports of large undertakings that are now under way in Southern States or are about to be commenced. There is the same housing shortage there as elsewhere, but there is much activity in the erection of buildings for commercial and manufacturing purposes. Millions are to be invested in the development of natural resources. Bond issues in aid of construction are proof that the good-roads movement finds as powerful support in the South as elsewhere in the land.

"The industrial development of the South and the spirit that is behind it are at work breaking down the barriers of sectionalism. The business interests of the South are being more and more closely interwoven with the business interests of other sections of the country. Much Northern capital is invested in some of the great undertakings already in existence, or in prospect, in Southern States. In other ways intimate financial and commercial relations are being promoted. It is a condition which promises well for the future prosperity of the country as a whole, as well as of the Southern States."

A PROPER KIND OF LIQUIDATION.

WHEN Secretary Houston appeared before the members of Congress who are struggling to discover some feasible method for the relief of agriculture and business in general, he was asked if he had any plan to offer. He was reported in the press as saying that he had none.

Unquestionably he was correct in so stating. He sees nothing to do but drift. That is fatalism of the sort that has produced India and China. If bad government brought ruin, those nations did not stop to inquire into the cause. They simply threw up their hands, took it for granted that Providence was punishing them for their sins and let it go at that.

We have in America great quantities of foodstuffs, copper, coal and oil. All of these things the world requires urgently. These comprise an enormous material asset. The way to liquidate it is to sell it. Liquidation by sheriffs' sales is ruinous liquidation. Liquidation by sales on sound credit is profitable liquidation. Washington has been demanding liquidation, but the only liquidation it wants is of the first sort. When liquidation of the second sort is proposed the Secretary of the Treasury does not know how it can be accomplished. He has no plan of his own and he has nothing but condemnation for the plans of anybody else. There is, it appears a vast difference between the genius for destruction and the genius for construction.

An obvious remedy for stagnation in commodity movements is encouragement of a dull market by offering liberal terms of sale, on sound credit commitments. This can be accomplished through corporations established under the Edge law, but such permanent vehicles of trade must be reinforced temporarily by the activity of some such organization as the War Finance Corporation. It is needed to fill a temporary void because it can function quickly.

GO THOU AND DO LIKEWISE.

(Copy of letter to The Literary Digest.)

Durham, N. C., November 22.

The Literary Digest,

New York, N. Y.

I wish to commend you for your most eloquent appeal in behalf of the sorely-stricken children of Europe and your generous contribution to their relief. I feel that any publication with such considerations of humanity deserves my patronage. I enclose check for \$4 for one year's subscription to The Literary Digest.

I also enclose check for \$20 for the Child-Feeding Fund. This contribution is made possible through the sacrifice of my little boy. I was reading the cover page of the MANUFACTURERS RECORD of November 18, calling attention to your appeal, when suddenly my little three-year-old boy came bursting into my office, his cheeks flushed with emotion, holding in his hand an open book and yelling: "Daddy, I want Santa Claus to bring me a little 'autobeel' like this," pointing to the picture in the catalog.

I began checking over my little bank account to see if I could afford to buy it for him, and naturally I found that I could, for all we fathers are millionaires under circumstances like this, and in reality we are, for what millions could buy one of these little ones from us? Then I turned and read your appeal in the MANUFACTURERS RECORD for food and clothes for the little ones across the sea, and the question came to me: Can I afford or have I the right to invest \$20 in a toy for my child when it will save the lives of two other children? When confronted with a question like this my duty is clear. I am sending you the check with the hope that in after years my child and the two he may save can more fully appreciate the great truths made known by the life and sacrifice of Him whose birth we commemorate.

Thanking both you and the MANUFACTURERS RECORD for presenting this duty so clearly to me, I remain,

Sincerely yours,

B. D. GADDY.

The St. Lawrence River Project—Shall Great Enterprises Be Regarded from a Sectional or National Standpoint?

BECAUSE they fear that the opening of the St. Lawrence River by a great canalization scheme which would permit ocean steamers to go direct from our American lake ports to all parts of the world, many business men in New York and Philadelphia, and some in other Eastern ports have vigorously opposed the plan for the betterment of transportation through the St. Lawrence River. Viewed from any standpoint, this is narrow, sectional, provincial and unworthy of any important business leaders. The feasibility of the St. Lawrence project might be wisely discussed, but to oppose it on the ground that it will give free access of the Central West to the markets of the world, and in that way possibly lessen the commerce through Eastern ports, is wholly unworthy of American citizenship.

Whatever develops one part of this country ought to be regarded from the broad national standpoint, which means that every section and every enterprise must be considered, not from the sectional standpoint, but from that of what will be its influence in developing any part of the United States, for whatever benefits one part, in the end finally benefits all parts. New York and other Eastern cities ought not to permit a narrow, selfish view to influence their judgment as to the wisdom of the St. Lawrence River scheme. The whole subject is very broadly discussed in this issue as a matter not only of national but international concern.

Some of the opponents of the enterprise take the ground that the time is near at hand when there will be no large supply of Western wheat available for shipment, either by water through the St. Lawrence or by rail to Eastern ports. Others have wisely, we believe, looked to the intensification of fertilization of the wheat lands of the West and increased production therefrom. Under a proper system of intensive fertilization, it would be possible to add from 50 to 100 per cent to the average yield of wheat in this country. Running as we now do anywhere from an average of 12 to 14 bushels per acre a year, we should be able to carry this easily to 20 or 25 bushels on the average, but this involves heavy fertilization of the Western grain fields, which are already suffering from the drain which has gone on for many years upon their soil.

Fortunately, nature has placed in the far West the greatest supply of phosphate rock known in the world, and the great smelters of that region are now turning their sulphur fumes into sulphuric acid. The West, therefore, has the basis on which to develop a fertilizer industry equally as great as that of the South, and the time is not distant when the wheat fields of the West will need the use of commercial fertilizers possibly as freely as the cotton fields of the South. The creation of a vast fertilizer industry in the far West is one of the certainties of the future, and its influence upon Western agriculture will be equally as pronounced as has been the fertilization of the cotton fields of the South. Unless this should come about, we would soon reach the limit of our wheat production and our ability to export wheat, but with ample fertilization the West should be able to increase the average yield of its wheat to such a point that we would, for many years to come, have as large a surplus for export as we now have. We ought to be able to take care of the increasing consumptive demands for our own growing population, and yet, by a larger yield per acre, be in a position to supply wheat to foreign countries.

This, however, will depend largely upon the full utilization of the fertilizer-making resources of the far West. If this

industry is not developed on a large scale, there can be no increase in wheat production sufficiently great to keep up the volume of exports such as we have had of recent years.

The whole enterprise of increased grain production and the shipment of grain by the proposed St. Lawrence route or via existing lines to New York and other Eastern ports, present vast possibilities for the future growth and enrichment of the West, which means the advancement of the entire country.

The West, with its mighty industrial development, has a right to seek national aid for carrying on such an enterprise as the improvement of the St. Lawrence in connection with the Government of Canada, provided engineers can prove the feasibility of the scheme from the commercial standpoint.

The next business boom in this country, which we trust is not very far ahead of us, will again swamp every railroad to the breaking point and our business expansion will, within the next five or ten years, be halted by inadequate transportation facilities almost as much as it has been within the last two or three years. Railroad expansion cannot be pushed rapidly enough to meet the needs of the future, nor can motor transportation over improved highways, rapid as the growth will be, take care of this advance in the development of traffic. We must, therefore, develop in every way possible water transportation and the improvement of harbors in order that in this way we can so meet the pressing need for transportation, which will become more and more acute when business again revives, that the whole nation will expand its trade commensurate with its resources.

HAS A BETTER DAY DAWNED?

"EDITOR EDMONDS of the MANUFACTURERS RECORD will find it a little difficult to get the people of the South to agree with him that a 'better day is dawning' so long as the price of cotton, tobacco and other Southern farm products is on the toboggan. Missouri is not the only place where folks have to be shown. There will have to be some demonstrating in these parts before the RECORD's prophesy is taken at face value."—Kinston (N. C.) Daily Press.

"The MANUFACTURERS RECORD has been a staunch friend of the South and it has always claimed to champion only the best interests of this section, but in its support of President-elect Harding's campaign and in its denunciation of the Wilson Administration, it will not be an easy matter to sustain its record."—Kinston (N. C.) Daily Press.

These two editorial paragraphs from the same page of the Kinston Press really answer themselves. The poverty and the low price of cotton, tobacco and other farm products were brought about wholly by the disastrous work of the Federal Reserve Board and Secretary Houston of the Treasury Department, all a part of the Wilson Administration, and appointed and kept in office by President Wilson. Was not the MANUFACTURERS RECORD, therefore, justified in seeking to overturn an Administration which, without the shadow of excuse, had literally forced a curtailment of credit and prices, costing the South billions of loss? Is not the very fact that the men responsible for this terrific decline in farm product prices have been so overwhelmingly defeated in itself a proof that "a better day is dawning"? Indeed, the sun went down on November 2 on a safer world, and the sun rose on November 3 on a country saved as by fire from a condition many times worse than what we now have, because our people proved their independence and their soundness of judgment at a crucial period by overwhelmingly repudiating the false leadership which had very nearly wrecked all our prosperity, wiped out billions of value from farmers and merchants, and thrown millions of people out of employment. Yes, a better day has, indeed, dawned!

THE FOLLY OF THROWING BUSINESS FROM THE MOUNTAIN TOP TO THE VALLEY.

A CORRESPONDENT of the MANUFACTURERS RECORD, writing from Oklahoma, discussing the cotton situation as it appeared to him in a trip through that State, says:

"I suppose you know all about cotton, and I know I don't, but I saw what seemed to me so much of it on the plant as the train pursued its leisurely way that I asked a question or two when in Ada last week, and was told that in that county 25 per cent of the cotton then in the fields would never be picked. This was because of the price of cotton and the cost of getting it. My informant said most of the farmers owed so much to the banks that they knew they could not pick and gin the cotton and get enough money out of it to pay their loans, and, therefore, they ceased to worry about it.

"Today I was talking with L. C. Wright of the Hart Cotton Machine Co. here, who confirmed what the other man said, but backed it up with figures. He said the estimate for this State was about 1,400,000 bales, and that so far 500,000 bales had been picked. He did not believe more than one-third of the remainder would be picked. The reason was that it would not pay the grower to get it. That meant that a bank or individual who financed the crop could hire pickers if he wanted to and take the proceeds, except for the fact that there wouldn't be enough left to make it worth while.

"I asked him in detail what he meant, and his figures went on to show that at the present price of 18 cents per pound, the grower would get \$90 for a bale, plus \$7 for 700 pounds of seed at the price of \$20 per ton, a gross revenue per bale of \$97. His expense for picking 1600 pounds of cotton at \$2 per hundred pounds is \$32; ginning at 40 cents per hundred, \$6.40; one-fourth of the price of his cotton to the landlord, \$22.50, making a total expense of getting the crop \$60.90 per bale, which, deducted from the \$97, leaves him \$36.10 to the good. If a man has 50 acres in cotton and gets half a bale to the acre, his earnings for the whole year on 25 bales is thus \$902.50. But the price of 18 cents is the current price for strict middling; much of the cotton in this territory, as I understand it, is a lower quality than that, and a price of 16 cents per pound might be fairer, in which case the year's earnings will be \$724.50. Also one-half bale to the acre is about the average for this State; there are some places where a bale to the acre can be obtained, but, on the other hand, there are places where only one-quarter bale to the acre can be procured, so the average of one-half bale is about right. Again, if the landlord has bought the seed and the machinery and tools, the tenant cannot get along with paying one-quarter of the price of the cotton, but must pay one-half.

"On a picking of 1600 pounds, the farmer is rather fortunate if he gets 500 pounds of cotton, and of the remaining 1100 pounds he is equally lucky if he gets 700 pounds of seed. The remainder is dirt and trash.

"I asked Mr. Wright just why it was necessary to pay as much as \$2 per hundred for picking, and he said that it finally got back to the increased wages given to railroad employees and to the cost-plus plan of the Government in building cantonments and the like. Labor had left the cotton farms for more lucrative jobs, and when time came to pick cotton the farmers found it difficult to procure hands, and were then bidding against each other to get what they could. So there won't be so much cotton picked as the growth of the crop might warrant, and I understand more than one tenant farmer is just pulling up stakes and hiring himself and family to pastures new, leaving his debts and the cotton behind."

Anyone who travels through the South will be impressed with the amount of unpicked cotton standing in the fields, much of which seems to have been entirely abandoned. Many tenant farmers in the Central South, as well as in Oklahoma and the Southwest generally, have been so discouraged by the prices prevailing that they have abandoned their crops and will try to find some other way in which to secure employment and make a living. This depression is not only in cotton, but is even more pronounced in tobacco. A few days ago a grade of tobacco which one year ago was selling in North Carolina markets at 25 cents a pound sold in one Eastern North Carolina market at 1½ cents a pound, and a farmer made the statement that high-grade tobacco which last year he sold at \$1 a pound is now only 16 cents. He has 12 barns full, and

proposes to scatter it on the ground and plow it in, claiming that it is worth more as fertilizer than the present prices.

This whole situation has been brought about by the plan of the Federal Reserve Board to restrict credit and break down prices. About a year ago a leading banker in a letter to the MANUFACTURERS RECORD upheld the Federal Reserve Board's plan and said there was too much prosperity in the country and business must be "brought back to normal conditions." If these conditions now prevailing are "normal conditions," as viewed from the banker's standpoint or from that of the Federal Reserve Board, may Heaven save us from any more "normal conditions" and bring us safely back to abounding prosperity.

We think we are headed on the road to prosperity, but there is a steep hill to climb, because the Federal Reserve Banks caught the business interests of the country by the back of the neck and threw them down from the mountain top into the chasm below. We might have crawled down safely during the next four or five years from the high position on the mountain without disadvantage to ourselves, to business or to labor, but to be thrown over bodily into the chasm was one of the disastrous experiments of narrow-minded members of the Federal Reserve Board who thought they knew more than anybody else about business and finance.

Surely the country is to be congratulated that it was saved from a continuation of this campaign. Out of the valley of depression the country must now crawl.

The sick man, hammered almost to death by the clubbing of the Federal Reserve Banks, will recover from the blows, but it will take some little time for him to regain his full strength and employ the workers laid off during his illness. He is on the road to convalescence, and that is where the business of the country is headed. But what an infinite pity that business was thus clubbed nearly to death merely for a false theory of finance!

INEVITABLE RESULTS OF DEFLATION.

WHAT an infinite pity that the Federal Reserve Board was not composed of real financiers big enough and with knowledge of financial history sufficient to enable them to see that their campaign of deflation meant drastic destruction of prosperity. Blindly, stupidly, indeed asininely, they knew nothing beyond the senseless idea that there was something devilish indeed, in inflation and abounding prosperity, and so thinking they were mighty wisecracks, instead of pigmies in finance, they have burned down the house in order to catch a few rats. They have driven millions into poverty, and now they haven't the knowledge or the backbone and moral courage to try to undo their work of evil. Tremendous, terrific autocratic power has been used with as little appreciation of the ruin that would follow as Kaiser Wilhelm had when thinking that he had everything in his own hands he started his campaign of destruction.

The Nation's Only Hope Lies This Way.

First Baptist Church,
John F. Vines, Pastor.
Roanoke, Va., November 23.

Editor Manufacturers Record:

I am sending check for renewal to your great paper, and in doing so I want to say I receive nothing superior, and I read nothing so completely as the fine principles you stand for and preach. I am deeply grateful for the excellent work you are doing, and I am under lasting obligations to you for the joy I get in reading, week by week, your work. Thanking you, and with very best wishes and praying that your ideals may some day be realized in this nation, I am,

Sincerely,

JOHN F. VINES.

MORE INSIDIOUS GERMAN PROPAGANDA.

UNDER the caption "German Dye Trust Strengthened to Fight American Competition" there was printed in the Philadelphia Public Ledger of December 1 the following dispatch from Berlin:

"The five great companies in the German dyestuff trust which, during the war, allied themselves in a close community of interest with the aim of regaining their old position in the world's markets after the war, are now arming and equipping themselves with an even stronger joint organization with the avowed purpose of going after the American dyestuff industry, whose competition, particularly in East Asia, is proving more dangerous than the Germans had anticipated.

"The trust agreement, originally running until the end of the year 1905, has been extended until the end of 1909, and can be abrogated only by a four-fifths vote. The stockholders are the constituent companies. These retain their separate legal existence, but work as one vast concern, concentrating their interests and dividing the processes of manufacture among the different plants to obtain the cheapest and most efficient production for export.

"A company spokesman, at Saturday's meeting of the stockholders at the Baden Anilin Soda Factory, called on to approve the changes in the trust agreement, singled out American industry as the outstanding competitor and the greatest menace to the German dye trade in the export markets of the world. American companies, thanks to the process of concentration and control of great capital and 'robbery' of German patents, had established themselves, he said, in a position which went far beyond the anticipated limits of competition, namely, the defense of home markets against a new German invasion and now threatened to capture the rich market in East Asia.

"The members of the trust are forming a new company with a half billion capital to take over for joint operation the nitrate factories hitherto operated separately. The plants are proving far more expensive than anticipated and very slow in fulfilling their promises to provide German agriculture and industry with the necessary nitrogen derived from the air to make Germany independent of Chilean nitrate imports."

There is no doubt that the German dye interests are devoting every effort to plans for extirpating the American dye industry. The dispatch indicates, too, that recourse is being had to subtle propaganda of the most insidious sort.

Here, for instance, is the German dye cartel able to induce an American correspondent to send by wireless a dispatch purporting to prove that the American dye industry is now so strong that it is capturing world markets and that the German industry cannot compete with it. Clever enough. If the American people can be made to believe that they will refuse to protect their own dye industry, that is just what the Germans want. Give them an open American market for even one year and they will prove to their own satisfaction just how strong American competition is. They will wipe it out.

Let no good American be deluded. The newspapers reported last Sunday that one important American dye industry had already been forced to the wall by German competition and was going out of business. These Germans are sending their dyes in under Swiss and other neutral trade names, and they constitute at this minute a threat against the American chemical and dye industry just as they do in England.

The next war, if there is one, will be a chemical war, and woe to any nation that is not chemically prepared for it!

A GOOD CHANGE.

"MEMBERS of the Texas delegation in the Congress will vote to take raw material off the free list. Their contention is that wool should get protection the same as woollens."—Waco Times-Herald.

Good! We have been preaching this doctrine for many years, but the Southern Democrats, played for suckers by Eastern interests, jumped at the bait and swallowed it and the hook too. Eastern Republicans said "If Southern Democrats have no interest in protecting their raw materials, why should be do so when Eastern manufacturers are eager for free raw materials?"

GET TO WORK AND DO BUSINESS.

Decatur Brick Corporation.

Decatur, Ala., November 20.

Editor *Manufacturers Record*:

I want to urge the earnest consideration of the *MANUFACTURERS RECORD* and, if possible, your own personal interest and co-operation in the following suggestion:

Without going into detail, I will merely state that this is with reference to the present serious state of business in this country and what it portends for the future, for you are more familiar with these distressing conditions probably than any other man in the country.

We hold that there is absolutely one solution of this problem, and that is, that every individual and concern begin at once buying with reference to the present serious state of business in this country and what it portends for the future, for you are more familiar with these distressing conditions probably than any other man in the country.

To bring this about is what concerns us. We hold that holding cotton, for instance, will not in itself do this; cutting prices by merchants, jobbers or manufacturers below present levels will not and has not accomplished it; in fact, has had the opposite effect. Prices, as a whole, are absolutely as low as they can go without reducing labor and thereby further diminishing buying power.

As a starter, the Morgan Kiwanis Club of Albany-Decatur will send a committee Monday, November 22, to place before Mr. Mercer Barnett, International President of Kiwanis, plans for enlisting the aid of the United States Chamber of Commerce, Retail Credit Association, Rotary clubs, Commerce Department of the Government, newspapers and public-spirited business men, such as yourself, in a national campaign to buy now. Urge upon every merchant to place during December orders for his legitimate spring needs; urge merchants, jobbers and manufacturers to place their products on lowest legitimate levels, and give every purchaser, individual or corporation, his word of honor the price is his minimum price until after spring deliveries. As prices of raw materials rise to their proper levels it will be the individuals and concerns who do not do their part now who will lose.

If this idea is sound and will do what we hope for it, the co-operation of these forces can be had. First, we must know or have reason to believe strongly that our theory is correct, and I invite your frank criticism and suggestion.

P. R. MORRISON.

In reply to the foregoing, the editor of the *MANUFACTURERS RECORD* wrote as follows:

"I am not at all unmindful of every condition which prevails in the business world and of the distressing depression in cotton and other farm products. But I have seen the farmers of the country meet worse conditions than they now face and heroically overcome them. I have seen the business men of America rise superior to the adverse conditions of the hour and bring about broad general prosperity by putting pessimism behind them and looking with optimistic spirit to the things that must be done.

"In this country, by virtue of the conditions which prevailed after the panic of 1907 up to 1912, and then the introduction and final passage of the Underwood free-trade bill, followed by the war work, we have had a long period without any marked activity in the doing of things which make for a broad general advance. We have left unbuilt more than 1,000,000 dwellings which should have been constructed before this. We have left unbuilt thousands of miles of railroad badly needed, and we have permitted our entire railroad facilities to run down. Schoolhouses, churches, hotels, office buildings, highways and many municipal improvements have been held in abeyance from 1907 to the present hour. These things must be done. The United States, with 105,000,000 of the most virile people in the world, will not stop construction work. It will rise above the unwise action of the Federal Reserve Board; will reassert its business manhood and once more take up construction work and carry forward the development of the country.

"I am looking, therefore, to an early return of business activity. I believe that it is the duty of every man who has any work to do to do it now; of every man who has any build-

ing that needs to be done to do it promptly, and thus, with each man standing by his own job and doing his share, the tide will be turned and we shall have a flood tide of prosperity instead of an ebb tide, which we have lately been enduring. This is possibly, in the language of the fisherman, the slack time of the tide. I think we have reached the limit of the ebb, and while the flood tide is not yet in evidence, I am sure its movement is not far away."

OFFICIAL FIGURES SHOW NATION IS BUYING AS MUCH FOODSTUFF AS IT SELLS.

OUR imports of foodstuffs are increasing and our exports of foodstuffs are decreasing. Witness the facts:

	Month of October		Ten Months Ended October	
	1920	1919	1920	1919
Imports				
Foodstuffs in crude condition and food animals	\$56,254,186	\$55,496,182	\$485,821,193	\$433,550,896
Foodstuffs partly or wholly manufactured	59,163,224	49,061,856	1,116,331,557	478,002,144
Total	\$115,417,410	\$104,558,038	\$1,602,152,750	\$911,553,040
Exports				
Foodstuffs in crude condition and food animals	\$118,679,259	\$55,860,026	\$731,933,068	\$572,251,833
Foodstuffs partly or wholly manufactured	77,440,808	134,256,693	953,181,421	1,701,934,598
Total	\$196,120,167	\$190,116,719	\$1,685,114,489	\$2,279,186,437

The first ten months of 1920, as compared with the same period of 1919, show an increase in the importation of foodstuffs of \$690,599,710. For the same periods, there is shown a decrease in the export of foodstuffs to the amount of \$589,071,948.

We are now buying almost as much food as we sell. The farmer needs a protective tariff, and he needs it promptly. Legislation authorizing permissive import embargoes should be enacted to safeguard agriculture pending the final passage of a protective tariff law.

THE POWER FOR GOOD AND THE PROFIT IN HOME OWNING.

THAT home owning is a safeguard to the life of the nation and a protection against Bolshevism and Socialism is universally admitted, but the question as to how the American people shall to a large extent become home owners is a difficult problem to solve. The city of Baltimore has probably made greater progress in that direction than any other city in America, for home owning is here the order of the day. Thousands of dwellings are annually erected by capitalists and builders for the express purpose of being sold on long time and easy payments.

A few years ago a compilation was made showing that within the ten-year period prior to the war Baltimore had built about 30,000 houses, most of them comfortable, two-story, well-equipped dwellings, nearly every one of which had been sold by the builders on the building-association plan. To the conservatism of Baltimore labor, based on this home-owning spirit, is due much of the remarkable progress of this city.

During the last two years more money has been raised for industrial development in Baltimore than in the preceding eighteen or twenty years, the amount running into several hundred millions of dollars. A number of great enterprises now being built here located in Baltimore because of the supply of conservative labor as compared with other cities, and this conservatism and contentment of labor have come about very largely through ownership of their own homes by the laboring people. It has been made possible in Baltimore for a man of moderate income to buy his own dwelling and pay for it through the building association or the savings

banks, and whenever a man becomes a home owner he becomes a broader and a more patriotic citizen.

Bearing on this question of home owning, Mr. G. W. Soule, a leading manufacturer of Meridian, Miss., writes to the editor of the MANUFACTURERS RECORD.

"Of course, you, like nearly all intelligent people, claim that the home owners are the great bulwark of our nation. The best method of promoting the owning of homes would be to make every moderate home entirely free of all taxation so long as it is owned and occupied as a home for its owner; that is, make it more economical to own a home than to rent one.

"It is our opinion that every State should at the earliest possible moment make the moderate home entirely free of taxation; that the United States Government should make such part of the income each may invest in a home exempt from income tax.

"If such could be done immediately, it would more greatly promote the resumption of business than any other measure that could be adopted.

"As conditions are in most parts of the United States, it is usually considered uneconomical to own one's own home. The taxes on a home probably average over 2 per cent of its value in our cities and towns.

"We believe that you will endorse this suggestion, and hope that you will take the matter up in your paper and invite its discussion by your readers."

We are glad to publish Mr. Soule's suggestion and to invite discussion of the subject. The proposition which he makes of exemption from taxation on homes is possibly not feasible, but the idea is at least worthy of discussion, because home owning means broader patriotism and greater national safety. We do, however, believe that that portion of his letter which suggests that the Government might exempt from income taxation whatever investment may be made in the purchase or the building of a home is feasible and could be carried out to advantage. Moreover, we believe all communities could wisely exempt from taxation for, say, five or ten years all investments now made in building or improving dwellings.

The legislative assemblies of New Jersey and New York recently passed laws providing for the exemption from taxation of dwellings erected after the passage of the laws. The New York law authorizes the legislative body of city, town or county to provide for exemption if it so desires; while the New Jersey law provides (with certain exceptions) that taxes shall not be levied upon dwellings erected during the next five years.

Some method of taxation must be devised which will encourage house-building and home-owning.

The country is more than 1,000,000 dwellings short of its actual needs, some authorities even estimating a shortage of more than 2,000,000 dwellings, and with immigration pouring into this land at an alarming rate, this congestion will grow more acute, and out of this will be developed a spirit of Bolshevism and anarchy. It is exceedingly important that this situation should be met by an active campaign for house building for renters and for buyers alike.

The South especially needs to develop among its people of money a spirit for the building of dwellings for rent or for sale at a price which will meet the ability of men of moderate means, black as well as white, to buy. In the South the poor man is inadequately housed in the city and on the farm. To enable a man to get a comfortable two-story, thoroughly built, modernly equipped dwelling, such as are available in Baltimore, a Southern man must have a far greater income than is required in Baltimore.

The tenant-houses on the farms of the South are to a large extent a disgrace to civilization, due mainly to the long years of low price for cotton. The landowner who does not spend a considerable portion of his income improving his houses so as to make better men and women of his tenants is failing of his Christian duty. We cannot hope to develop the highest morality and education in huts and hovels, and to this problem the South must devote its attention. Baltimore is setting the whole country an example in the power and profit of home owning.

A SUGGESTED PLAN, BRIEFLY OUTLINED, FOR THE RELIEF OF AGRICULTURE.

Keswick, Va., November 1.

Editor Manufacturers Record:

The adoption by the nation of a permanent agricultural policy having for its purpose the assurance of an adequate future food supply.

This will necessitate the payment of such prices for food crops as will yield the grower a fair profit on the value of his investment after payment to his labor wages fairly comparable with wages paid labor in other work.

To effect this it is necessary, first, for men and women engaged in agriculture to secure by their vote such representation in the councils of the nation—Congress and the State Legislatures—as their number compared with the number of men and women engaged in other work entitles them to, and, second, to secure the creation of a Federal Commission on which all interests concerned—food producers, middlemen and consumers—will have representation to fix annually before seed time fair prices, determined by cost of production, to be paid for the next year's crops.

A precedent for such commission was created by the Transportation Act (Esch-Cummins) passed by the last Congress, which assures the owners of railways an average return of 5½ to 6 per cent on the value of their properties for a period of two years, and thereafter a fair return on such value, the cost of transportation to be the basis for determining same.

This Act was passed to secure to the public adequate transportation to meet its needs at reasonable cost and to induce the investment of private capital to provide same.

JAMES M. BARR.

Mr. James M. Barr, the writer of the foregoing letter, was for many years one of the leading railroad men of the country, and for some years vice-president of the Seaboard Air Line. The suggestion, therefore, comes from a man long engaged in big business operations and who is now carrying on some rather large farming work on rich drained land in Eastern Carolina.

Mr. Barr's suggestions may seem to be very radical to those who have not fully understood the seriousness of the agricultural situation of this country.

We have legislated for almost everything in industry and business except agriculture. To a large extent we have legislated against the farmers and the break of prices which has so impoverished some millions of farmers was a direct definite plan carried out by the Administration from the day when President Wilson promised to the railroad employees the utmost endeavor of the Government to break down the cost of living. Every intelligent man knew that the cost of living could not be decreased rapidly without a disastrous break in the price of farm products, but following President Wilson's promise to the railroad laborers came the determined unbending plan of the Federal Reserve Board to accomplish what President Wilson had promised.

Nearly a year ago a leading Southern banker wrote to Secretary Houston warning him that the scheme of the Federal Reserve Board was merely playing into the hands of big banking interests in New York and would, if carried out, wreck the Democratic party, or at least defeat it in the coming election. This prediction was fulfilled. The letter was written by a man intimately identified with the best traditions and the best business interests of the South and what he said to Secretary Houston was said by many others to Secretary Houston and to members of the Federal Reserve Board.

It is reported that a member of the board has vigorously opposed the action of Secretary Houston and other members in bringing about this disastrous deflation, but if that be true, he made the mistake of his life in not resigning from the board with the announcement as to why he withdrew. Had he done this he might have become a powerful factor in saving the country from the present situation and made of himself a hero indeed.

The farmers, as Mr. Barr points out, must find some basis for assured profit on their business. Their work is equally

as important as that of the railroads, indeed, far more so. The Government has practically guaranteed to the owners of railways a fair rate of profit. Mr. Barr believes that a similar agreement must be made in some way to protect the farmers. We do not know that this is wholly necessary because we believe that if the banking system can be taken out of the present control and a legitimate, honestly-managed system be developed, the farming interests will be able to take care of themselves.

The actual situation, however, is serious enough to demand the most careful study of men who realize that unless there is a fair and regular profit to the farmers there will be such a decrease in farm output that the prices of the present will a few years hence seem very small. An abundant supply even at high price is infinitely preferable to a famine and still higher prices.

The farmers were encouraged to produce big crops. There was no shortage of banking facilities when they were planting and plowing, but as they did not understand that the Administration in every ramification of its influence had determined to break down farm prices in order to lessen the cost of living in compliance with the promise to the railroad men; they did not lessen their effort to produce big crops and in the production of big crops they of course had to borrow heavily. No reader of the MANUFACTURERS RECORD during the last twelve months should have been surprised at what has taken place. We predicted exactly the present situation of business chaos and millions of people thrown out of employment, unless the Federal Reserve Board could be persuaded to change the plan which it adopted a year ago to restrict credit and deflate business. What we now have is the natural harvest of the seed of distrust and fear which the Federal Reserve Board planted with such abundance and fertilized with the constant outpourings made by Secretary Houston, Governor Harding and other members of the board. We at least have the satisfaction of having week after week warned our readers of the impending crisis.

INCREASING EXPORTS OF COTTON.

EXPORTS of cotton to Europe for October amounted to 582,014 bales, an increase of 23,000 bales over October, 1919. These shipments exceeded by 182,000 bales the consumption of cotton for the same month by American mills. In October, 1919, the consumption of American mills was 556,041 bales, as compared with 352,231 exported, whereas for October, 1920, the conditions were largely reversed and American mills consumed only 399,837 bales, as against 582,014 exported. Every foreign country, except Japan, which consumes largely of American cotton, showed for October a heavy increase over October, 1919.

The exports of domestic cotton and linters (running bales) were as follows:

Country to which exported.	October.		3 mos. ending Oct. 31.	
	1920.	1919.	1920.	1919.
United Kingdom.....	211,085	187,870	359,595	512,809
France.....	121,160	45,350	165,518	87,172
Italy.....	45,896	17,600	67,021	68,999
Germany.....	79,732	33,641	167,704	82,588
Other Europe.....	106,940	37,276	153,579	236,455
Japan.....	3,628	21,740	4,635	43,469
All other countries.....	13,573	8,754	38,897	36,491
Total.....	*582,014	*352,231	*956,749	*1,067,983

*Figures include 1709 bales of linters exported during October in 1920 and 820 bales in 1919, and 4843 bales for the three months ending October 31 in 1920 and 9689 bales in 1919. The distribution for October, 1920, is as follows: United Kingdom, 101; France, none; Germany, 50; other Europe, 802; Japan, none; all other countries, 756.

While the shipments for three months were less than for the corresponding period of last year, this decline will be rapidly overcome if exports continue to gain as in October. It will be noticed from the foregoing figures that Germany is again beginning to import cotton on a large scale.

A DEFENDER OF DISORDER.

TOM MOONEY, the California convict, is the latest object of solicitude on the part of Dr. Richard W. Hogue, once of the cloth, now a professional agitator, a pacifist in the nation's hour of peril, an apologist for Debs, a defender of W. Z. Foster, and an apostle of revolution, now and heretofore. To Mooney, Hogue, on December 4, devoted his hebdomadal benefaction, the accustomed half-page advertisement which the complainant Baltimore News exclusively prints for Hogue every Saturday, sometimes over his own signature, formerly as a "group of men interested in making manifest the social implications of the Gospel," and latterly carrying the authority of "the Church League for Industrial Democracy."

In his latest affront to intelligence and orderly government Hogue quotes half truths and notorious lies in an attempt to arouse sympathy for Mooney as the victim of a gigantic frame-up. This is familiar talk from I. W. W. sources and their sympathizers. In fact, the Mooney case is decidedly a touchstone which sharply differentiates those who support law and order and those who would sovietize or bolshevize America.

To give a fresh illustration, John Mooney, brother of Tom, recently toured the East, addressing meetings and soliciting money to keep up the fight to get Mooney out of jail. He frankly defended the I. W. W. and bolshevism, and eulogized conditions in Ireland and Russia, which countries, he declared, are "the two bright spots on the map of the world today!"

To such influences are Hogue, his backers and their confederates attempting to commit the United States of America!

"THERE ARE BETTER DAYS AHEAD FOR THE NATION."

MR. WILLIAM E. LAW, formerly of Spartanburg, S. C., but for some years president of the First National Bank of Philadelphia, rightly sizes up the situation when in his weekly financial letter of November 15 he writes:

"The most encouraging development since the World War began has been the extraordinary victory of November 2 for the **spiritual forces and influences** which will put this country upon its feet. It means that the nation is coming into its own once more. * * *

"It has been in no sense a partisan victory, but a development of transcendent importance which will do more than anything else to inspire confidence and give men courage and hope to take up projects which had to be deferred while the future was in doubt. * * *

"The people must be patient, however, and not expect Mr. Harding to undo in six months the unfortunate things that have been done in six years. * * *

"Considering the longer future in the light of these noteworthy changes it is easy to see that there is no room for pessimism in reviewing the outlook. On the contrary, the prospect inspires confidence, for it is clear a **new day has dawned for the American people** who have led a sort of hectic existence ever since the armistice was signed. The mental wear and tear of long, continued disquiet and unrest has been a serious menace, impairing vitality and making for confusion at a time when highest efficiency should have been developed. There are better days ahead for the nation. * * *

"There is actually more sunshine and blue sky in the outlook than the average American citizen has been able to discern for many years. The situation calls for careful handling and the most painstaking effort to solve the foreign trade problems in a manner which shall provide adequately for the extension of American business abroad."

While we do not agree with some of the statements made by Mr. Law, more especially the one in which he says that the Federal Reserve System "is functioning well," we do most heartily approve of the statements we have quoted in regard to the atmosphere having cleared in the outlook for the future.

It will, however, take many months of reconstruction to rebuild the financial and business interests of the country.

We have been going through a period of destruction. We must now turn to reconstruction.

This is true not only as to financial and material things generally, but as to the spirit of the country. The nation has been torn asunder by plans and projects which served only to injure our own country without helping the world. We were told that America was ready to make "the supreme sacrifice" for the League of Nations, which meant that this country was willing to die, not with any assurance that its death would save the civilization of the world, but merely for an experiment, when, as a matter of fact, America has not been willing to commit suicide for an evanescent theory which grows more and more unsubstantial the more it is investigated. The work which is now going on in Geneva, the bickerings, the diplomacy of nation against nation, the demand of the smallest and most insignificant nations for an equal power in controlling the League which is to control the world, all indicate that the American people acted with wonderful wisdom when they so overwhelmingly at the polls said that America would not enter the League of Nations under the Covenant which had been presented to us.

With this problem out of the way, certainly in its acute form, the people of this country can now give attention to the upbuilding of the material and moral forces of the nation, and in this way serve the world and lead the world to far better advantage than it could have done under the League of Nations.

PREVENTION OF FIRE LOSS AS A MEANS OF HELPING HOUSING SHORTAGE.

ONE way to help meet the housing shortage in America is to reduce the enormous yearly fire loss of residences. With all the strides that have been made in scientific fire-fighting methods, the fire loss increases yearly, and while the population has somewhat more than doubled within the past 45 years, the loss suffered by fire has increased fourfold.

The situation is attracting increasing attention throughout the country, and it is manifestly proper that efforts should be made to reduce the fire hazard in order to render such assistance as may be possible to the solution of the housing problem.

Many cities have grasped the importance of reducing the fire hazard in dwellings as much as possible, and now require stringent inspection of electrical wiring; also the placing of terra-cotta flue linings in chimneys; prohibition of the building of wood structures unless placed, say, 20 or more feet apart; provision for rigid regulation of garage buildings near dwellings; enforcement of the construction of "fire and rat-proofing" features between floor joists and walls; and also require that requests for building permits be approved by the departments of both fire and engineering.

At the same time, much can be done individually that will reduce the fire hazard. More care can be exercised by the householder, and people generally educated to the possibilities of fire prevention. Those communities which have not sufficient water supply and fire-fighting equipment should, of course, get both without delay. The most modern equipment is none too good. In the absence of other action, volunteer fire-fighting organizations can be enlarged and further developed, and conditions thus bettered at once.

The enormous losses due to the destruction of residences by fire are a constant drain upon the housing resources of this country. There are many materials which are economical and practicable that will greatly retard the spread of fire and protect the wood used in house construction. It is necessary that more stringent building regulations be imposed by municipalities and governmental agencies. From every standpoint it is of very great importance that this annual loss be steadily reduced.

Immediate Relief to Farmers Is Proposed

AGRICULTURAL COMMITTEE OF UNITED STATES SENATE NOT IMPRESSED BY COMPLACENCY OF TREASURER HUSTON AND FEDERAL RESERVE BOARD—MOVE TO REVIVE WAR FINANCE CORPORATION AT ONCE.

[Special Correspondence Manufacturers Record.]

Washington, D. C., December 7.

The Senate Committee on Agriculture has drafted and will demand immediate consideration for a joint resolution to revive the War Finance Corporation and require the Federal Reserve System to extend reasonable accommodations to farmers. The mandatory part of the resolution is as follows:

"The Secretary of the Treasury and the members of the War Finance Corporation are hereby directed to revive the activities of the War Finance Corporation, and that said corporation be at once rehabilitated with the view to assisting in the financing of the exportation of agricultural products to foreign markets.

"The Federal Reserve Board is hereby directed to take such action as may be necessary to permit the member banks of the Federal Reserve System, in accordance with law and consistent with sound banking, to grant liberal extension of credit to the farmers of the country upon the security of the agricultural products now held by them by permitting the rediscounting of such notes of extension at the lowest possible rates of interest."

Decision to introduce the resolution and press for its adoption followed the testimony given before the committee by Secretary of the Treasury Houston and Governor Harding of the Federal Reserve Board.

Secretary Houston admitted that he had no remedy to offer, but was committed to a policy of inaction. Eugene Meyer, Jr., former head of the War Finance Corporation, testified that Secretary Houston had shown himself to be "completely ignorant" of the meaning and concept of the law authorizing the War Finance Corporation to assist in financing exports. "The Secretary's testimony before this committee constitutes a confession of complete impotence in the present great crisis. In support of his policy of inaction he continues to make statements which might be called misleading, but in view of the high office he holds I prefer to call them inexact."

Governor Harding attempted to show to the committee that there had been no restriction of credits, but an expansion. Members of the committee, however, pointed out that, irrespective of what the figures might show, they had personal knowledge of very stringent credit conditions in their own sections. Governor Bickett of North Carolina testified that the bankers of his State told him that they had been instructed by the Federal Reserve authorities to call loans. Reproductions of explicit instructions to contract loans sent out in official circulars by the Richmond Reserve Bank and recently reproduced in the MANUFACTURERS RECORD were called to the attention of Governor Harding. He suggested that the policy of a banking institution could not be fairly got from extracts of this character, but at no time did he deny that the extracts were a true picture of the program which the Richmond Reserve Bank has followed. When asked if the Richmond Reserve Bank policy correctly represented the policy of the Federal Reserve Board and had been formally approved, he declined to answer, taking the position that neither he nor the Federal Reserve Board was on trial. He charged that the Government's method of raising the war loans had been unscientific and had forced the Reserve Board to follow uneconomic practices, but that the board was not responsible for this.

The committee was not impressed with any of the advice offered favorable to inaction. On the contrary, it came to the conclusion that the suspension of the War Finance Corporation was a mistake and did not accept the theory that credit was ample and had been expanded instead of restricted.

The action of the committee was strengthened by the receipt of dispatches from Indianapolis to the effect that the Annual Convention of the American Farm Bureau Federation had unanimously adopted a resolution urging Congress to take immediate action looking toward the extension and renewal of farmers' obligations which had been discounted through the Federal Reserve Banks, placing an import embargo on certain classes of agricul-

tural products, and that such legislation be enacted "as may be expedient to bring about active trade relations with the Central European as well as other Powers of Europe."

Senators backing the joint resolution offered by the Agricultural Committee claim that they have sufficient favorable votes to override any veto by the President.

Want War Finance Corporation Restored.

New Orleans, La., November 30.—[Special.]—Cotton-oil interests of the South, meeting through the leading representatives of the industry, held a convention November 29 in New Orleans, declared that present prices for cottonseed and by-products are too low; that the industry is in a "grave condition," and that many more mills will be forced to control unless there is immediate restoration of the War Finance Corporation; reduction of ocean freights by the Shipping Board; reduction of discount rates and extension of credit; full assistance by the United States Department of Commerce in marketing surplus agricultural and industrial products.

Working to Enlarge Livestock and Dairy Industry of Florida.

Recognizing the importance of the livestock industry, the Florida Development Board invited Dr. John R. Mohler, Chief, United States Bureau of Animal Industry, to visit Florida and meet some of the leading livestock owners for an exchange of views on methods of conducting livestock sanitation work and improvement of livestock in this State. A meeting was held in Jacksonville, at which there were present officers and members of the State Livestock Sanitary Board; Florida Swine Growers' Association, Florida Dairy Association, Cattle Raisers' Association of Florida and Florida Development Board to discuss with Dr. Mohler and several members of his force existing conditions in the State.

Resolutions were adopted by the livestock owners, pledging their continued support of the work now under way and requesting the Federal Government to enlarge its activities in Florida in the future. As a result of the conference there is a better understanding between the authorities and the livestock owners regarding some phases of the livestock sanitary work, which promises to effect closer co-operation.

It was the first conference of that character Dr. Mohler had attended in Florida, and later he made a trip through the State to get first-hand information about working conditions and opportunities for developing the livestock industries.

Extensive development of the dairy-farming industry in Florida depends to a large extent upon securing a market for the surplus fresh milk produced during the summer months. In an effort to make a survey of the probable quantity which may be available in all sections of the State next summer, the Florida Development Board asked the executive committee of the Florida Dairy Association and representatives of the railroad passenger and agricultural departments to meet the wholesale milk dealers for a conference. The passenger agents were invited because the transportation of milk is under their jurisdiction. Every section of Florida was represented, and it was determined that Tampa and Jacksonville are the only markets having large quantities of fresh milk in excess of consumption demands during the summer months.

The conference requested the Florida Dairy Association to foster an advertising campaign devoted to food value of fresh milk, and requested the Florida Development Board to take the data submitted and try to interest some one in establishing manufacturing plants to handle the surplus fresh milk.

Inland Waterways Development Progressing Rapidly. Increased Interest in Barge and Steamship Companies to Handle Traffic via Canal System.

Norfolk, Va., December 4—[Special.]—A total of \$3,790,000 has been made available for improvements to the Chesapeake and Albemarle Canal out of the \$12,000,000 fund for development of inland waterways appropriated by Congress. The expenditure of this money has made possible the completion of a canal between Norfolk and Beaufort, N. C., with a depth of 10 feet, and plans call for a future depth of 12 feet.

Beginning at Norfolk, vessels and barges proceed via the Southern branch of the Elizabeth River, the Virginia cut of the original canal, and the North Landing River of Virginia and North Carolina; thence through Currituck Sound, Coinjock Bay and on to the mouth of the North River, a distance of 63 miles. From the North River the route is across Albemarle Sound to Alligator River, a distance of 12 miles. Thereafter the canal follows the Alligator River, Goose Creek, Bay River, Pamlico Sound and the Neuse River; thence through Adams Creek, Core Creek and Newport River. From the mouth of the North River to Beaufort is about 120 miles, making a total of about 185 miles from Norfolk to Beaufort.

The Atlantic Coast Inland Waterway provides a canal from a point near Boston to Norfolk, and then south. The proposed route of this canal is through the Cape Cod Canal to Long Island Sound, then to New York through the Raritan Canal to the Delaware River, and through the Delaware and Chesapeake Canal to Chesapeake Bay, and south through Chesapeake Bay, Hampton Roads and Elizabeth River to Norfolk.

The completion of these inland waterways projects is resulting in the organization of a number of new steamship companies and the expansion of established concerns which will take advantage of the opportunity to establish barge and boat service between Atlantic Coast Line ports. In addition, the operation of the barge service of the Inland and Coastwise Division of the War Department has been started, and will be expanded as conditions warrant.

A new company known as the Inland Waterways Steamship Co. has been organized under the laws of Delaware with a capital of about \$1,000,000 for the purpose of operating barge and boat service via the canal between New York and Norfolk and inland points in North Carolina as far as Beaufort Inlet. In fact, it is planned to bring cargoes south from the Great Lakes through the New York State Barge Canal, and thence follow the routes previously outlined.

With the organization of the Raritan Terminal and Waterways Association at Perth Amboy, N. J., efforts will be made to relieve congestion in lower New York harbor by deepening the channel of Raritan Bay and River and construction of the New Jersey Ship Canal.

Three self-propelled barges are now being operated between Baltimore and North Carolina inland points via Norfolk under the direction of the War Department.

35,000 Acres of Kentucky Land in Drainage Project.

Wickliffe, Ky., December 6—[Special.]—A levee and canal construction project, which will mean the draining of 35,000 acres of land in territory between the confluence of the Ohio and Mississippi rivers, in the extreme northwestern part of Kentucky, and an outlay of \$1,250,000, is made possible by a ruling of the Ballard Circuit Court November 20. The court overrules objections made by opponents of this project, who have been waging a fight during the past three years.

Heretofore spring floodwaters have lain on this land so long that the planting of crops has been greatly hampered. To protect this territory, which is said to be of marvelous fertility, a seawall around the 35,000 acres involved is planned. Fifty miles of ditches and canals are also to be constructed.

It is proposed to prevent all inundation of these lands by the two big rivers and creeks and to drain the rainfall by the ditches and canals proposed. Near Wickliffe a pumping station will be built large enough to pump the waters over the levee during flood stages. The water will flow by gravity during low stages of the river.

It is estimated that it will require from two to two and a half years to complete the work. An increase of almost \$4,000,000 in the value of the land to be drained is predicted by the men who have long been backing the project.

A levee will be constructed along the east bank of the Mississippi River from Wickliffe up the river to the mouth of the Ohio River. From that point the levee will follow the north and west banks of the Ohio River to the McCracken county line and to the river foothills near Ogden's Landing.

A diversion canal is to be constructed from the Clinton Creek drainage ditch, which was built about eight years ago along the base of the foothills from a point west of Bandana to Wickliffe. This will receive the waters from Clinton, Humphrey, Shawnee and Caney creeks and discharge them into the Mississippi just above Wickliffe, and will prevent these creeks from overflowing the flat lands of the district.

Purchasing Agents Outline a Program.

The National Association of Purchasing Agents, 19 Park Place, New York, announces that its national executive committee recently held a two days' session in Detroit and definitely organized the general constructive program which was recommended by the entire membership at the annual convention held in October at Chicago. Also that it is recognized that a mass of misinformation was one of the chief causes of inflation of prices and unnecessary buying, and furthermore that in business today there are "unfair practices and more or less vicious conditions" which are an unnecessary tax upon productive business. To secure adequate and accurate information each basic material is to be handled by a separate national council composed of a leading purchasing agent from each of the 35 districts in this country and in Canada, where the association is represented. The first thing to be done in a legislative way is to secure the enactment by Congress of a law making commercial bribery a penal offense.

Concerning the Pittsburgh basing point for steel prices, the association, it is stated, "takes the stand that a single basing point in an entire commodity is an artificial element in determining the cost of any material offered for sale, which thereby tends to make the selling price higher than it would otherwise be." A resolution has accordingly been approved by the national executive committee to the effect that "all lines of trade could be stabilized by establishing a standard of cost-finding plus a legitimate profit to sustain their industry, and base the selling price at point of production according to supply and demand."

Louisville Striving for Industrial and Commercial Revival.

Louisville, Ky., December 4—[Special.]—Louisville business men are deeply interested in reviving industrial and commercial activities. Community meetings, attended by every class of people, are being held throughout the city with a view to showing the advantages offered to merchants and manufacturers and to home builders as well. Plans are under way to expend \$100,000 during the coming year in advertising in newspaper and trade papers throughout the country.

Accordingly, efforts are being made to emphasize advantages the city offers for meat packing. The Louisville Livestock Exchange recently purchased a large packing plant formerly operated by the Cudahy interests, which is being held for the benefit of any large plant that may locate here in the future.

W. S. Bell, president of the exchange, points out that Louisville is pre-eminent as the largest livestock market in the South, the clearings for this industry last year amounting to approximately \$100,000,000. Geographical position and transportation facilities afford great opportunities for successful local packing plants.

Good roads being built throughout the State insure a steady and economical means of transportation to and from market for large sections of this and adjoining States. Railroads entering this city bring stock from Indiana, Kentucky and Tennessee. The recent large purchases made by Southern producers of purebred cattle for the best markets show the interest being manifested in livestock production.

Chemical Engineers Urge Protection of Dye Industries

[The American Institute of Chemical Engineers, which is composed of the foremost men in the country specializing in chemical engineering and in the design and construction of chemical plants, is holding its winter meeting in New Orleans this week. The Manufacturers Record is represented at this convention by Mr. Courtenay De Kalb, an eminent mining engineer, who sends by wire the following report covering the action of the Institute in endorsing the Longworth Bill to protect the American dye industry. In next week's issue Mr. De Kalb will handle in detail some of the special features of this important gathering.—Editor Manufacturers Record.]

By COURTENAY DE KALB.

New Orleans, La., December 6.

The American Institute of Chemical Engineers, which is holding its winter meeting in New Orleans, has gone on record in favor of immediate passage of the Longworth bill by the Congress for the protection of the coal-tar dye industry in the United States. It was pointed out that a declaration of peace with Germany would restore the pre-war trade relations with that country, thereby admitting German dyes and intermediates products, which would immediately destroy the infant dye industry that developed in the United States during the war.

Enormous sums have been spent by American firms in research work, and the progress made by our chemists has been phenomenal. Complex compounds and fast dyes equal to those produced in Germany have been developed as a result of these studies, and the industry is capable of supplying the needs of commerce, thus rendering the United States independent of any foreign supply. Great plants have been erected and are employing today many thousands of workmen. The capital expenditures in this branch of manufacture are estimated by members of the American Institute of Chemical Engineers to amount to over \$400,000,000. All this will be wiped out and the army of workmen employed will be thrown out of work unless measures are taken to afford adequate protection.

In anticipation of the reopening of our markets the Germans have been accumulating enormous stocks of dye materials with which this country would be flooded immediately if peace were declared without raising an effective barrier against such goods. A tremendous propaganda is being carried on by German agents to prevent the passage of a bill to protect the American dye industry, and the brokers formerly engaged in the importation of German dyes are lending aid to these efforts. Some of our textile manufacturers who think only of securing cheap dyes, regardless of the consequences to our domestic manufacture of these materials, are also in favor of admitting the foreign product.

The effect of lifting the embargo would be far-reaching. It would not only close the existing factories that are making coal-tar dyes, but it would paralyze the manufacture in this country of pharmaceuticals, drugs and photographic chemicals, and thus make us once more dependent on Germany for all these materials. In the event of another war we would be in the same perilous position in which we found ourselves at the outbreak of the late war. For the protection of the public health it is essential that we maintain independence in the production of these vital necessities. Without the complicated chemical industries, of which the manufacture of dyes is only a single phase, Germany could dominate our leather industry, the manufacture of textiles, wallpapers and many other articles of daily need. It would give a setback to the development of by-product coking and perpetuate our old wasteful methods of making coke, robbing us of an important source of light oils, ammonia and gas. The whole chemical industry would suffer a body-blow.

The Germans have strengthened their position to produce cheaply by consolidating all their chemical industries, together with the producers of raw materials, forming a gigantic trust such as would be illegal in the United States, and against which competition would be impossible. It must be remembered that the Germans have had over 50 years' experience in the making of synthetic dyes, pharmaceuticals and drugs, and we cannot overcome the difficulties involved in working out the technical details of manufacture without protection. Before the war the Germans built up their monopoly by selling dyes and intermediates for less than the cost of the materials entering into them whenever attempts were made by Americans to develop similar industries here, and the foremen of dyeing plants were systematically bribed to use their products and to reject domestic competitive materials. By such unfair methods they held control of the business, and

they will do the same again, aided by their cheaper labor and by the advantage of prevailing low rates of exchange.

The American Institute of Chemical Engineers has made a strenuous appeal to the Congress to save this new industry that has now reached a point where it can supply our markets with the more important products. Recognizing the conflicting opinions in the present Congress regarding a tariff, they are distinctly in favor of the Longworth bill, which establishes a licensing system, under which such articles as are not yet produced equally well in this country may be admitted free until it is shown that domestic manufactures can replace them. Accordingly the Institute has today unanimously passed the following:

"Whereas, the American Institute of Chemical Engineers, at their annual meeting at New Orleans, now in session, recognizing the importance of the coal-tar dye industry to the country at large and the great danger threatening it in case adequate protection is not afforded it by our Government before peace with Germany is declared; therefore, be it

"Resolved, that we reiterate the position taken at our annual meeting in Savannah in December, 1919, and urge immediate favorable action on the so-called Longworth bill."

In addition to the dye industry people, it must be noted that barium compounds are essential as precipitants in making synthetic dyes, and such compounds were also being produced in large quantities in this country. Germany has recently been flooding our markets with barium products of all kinds, shutting down all our plants which cannot compete. This affects the production of floated barite, barium chloride and lithophone, the latter material having been the basis of an enormous industry in the United States involving large capital investment and employing thousands of workmen, who are now idle in consequence of this fierce competition. Up to date the dye industry has been protected by war trade board embargo, but this did not apply to barium compounds. These industries should also receive protection or they will be immediately destroyed.

Most of the members attending came by special train, which left New York last Friday. Sessions for business meetings and the reading of papers were held on Monday and Tuesday of this week, and a portion of each day was set aside for a harbor trip and the inspection of various chemical plants in and around the city. Wednesday and Thursday were devoted to visits to Louisiana's famous salt and sulphur mines and to the cane-sugar district.

This is the second winter meeting to be held by the Institute in the South, the one last year having met at Savannah, Ga. It is understood that the Institute plans to hold meetings every winter in the South, with a view to giving its members an opportunity of studying the wide range of resources in the Southern States for chemical industries, and to inspect the developments that have already taken place.

This is, indeed, a remarkable tribute to the advantages and resources which the South offers for the development of chemical industries. The Institute numbers among its members the leading men of the country who have played an important part in the development of America's chemical industries, and the fact that they are coming every year in the South is a high tribute to this section and furnishes convincing evidence of the opinion which they have of its future possibilities for their lines of endeavor.

A permanent organization to be known as the Princeton Commercial Club has been effected by business men at Princeton, Ky. Its officers are Darius Dyer, vice-president; Charles J. White, secretary, and Hugh Goodwin, treasurer.

[Raleigh (N. C.) News and Observer, November 28.]

Edmonds Denies Charges of News and Observer

MANUFACTURERS RECORD EDITOR CLAIMS MISREPRESENTATION OF HIS POSITION.

To the Editor:

In your issue of this date you publish the following:

"The MANUFACTURERS RECORD, discussing conditions since the panic of 1907, says American manufacturers made enormous profits during the war and utters no word of complaint therewith. When it comes to labor, it says wages were increased to an exorbitant extent, and classes this alleged fact among those overpowering disadvantages which hung like a millstone around the energies and activities of the country, the other alleged overpowering disadvantages being the possibility of American participation in the League of Nations and the Simmons-Underwood tariff."

In the same issue, referring to the League of Nations, you say:

"Really, the task of getting the truth to the people in the face of the propaganda intended to deceive is immense."

It is indeed difficult to get the "truth to the people" when such papers as the News and Observer so thoroughly misrepresent the situation so far as statements about the MANUFACTURERS RECORD are concerned. I crave the privilege of space in the News and Observer to present the "truth to the people" and a few facts which concern the public.

In your reference to the MANUFACTURERS RECORD you entirely misrepresented its position in regard to labor and to manufacturers. The MANUFACTURERS RECORD has for many years insisted upon higher wages for labor and higher prices for farm products. Week after week it has proclaimed that the laborers and the farmers of the country had never until about two years ago received a fair profit for their work. It has for more than a quarter of a century been insisting, in season and out of season, for higher prices for cotton, and in this has constantly antagonized the position of cotton manufacturers, cotton gamblers and the financial interests of Europe and America in their combined effort to break down the price of cotton. It has denounced unceasingly with all the vigor of language that it could command every effort to force down the price of cotton. It has repeatedly said that the economic slavery in which the cotton growers of the South had been chained by reason of the campaign against a fair price for cotton and the labor of producing it had less to its credit than the black slavery of ante-bellum days. I have said over and over again that, however unwise from every point of view might have been negro slavery, it had some redeeming qualities of good, whereas the slavery forced by financial and manufacturing cotton interests and cotton gamblers upon the South's cotton-growing industry did not have one redeeming quality. That has been my position, aggressively pressed and stressed upon the country, for more than a quarter of a century. I have taken the same position in regard to labor, and have always fought every effort to break down the wages of labor, and during the last year, in which the Federal Reserve Board has been aggressively trying to deflate commodities and wages and prosperity, I have warned the country and the Federal Reserve Board that such action would inevitably tend to create a wave of non-employment and a Bolshevistic spirit.

In the editorial which you have criticised I referred to some wages as having been increased to an "exorbitant" extent, but I at the same time have maintained constantly that the great average of wages had not been unduly high and that there should be no decrease. One illustration of "exorbitantly" high wages forced upon the country during the last two years is the statement made by President Ferguson of the Newport News Shipbuilding & Dry Dock Co., who, in an address before the Richmond Chamber of Commerce some months ago, stated that his company was then paying to negro riveters working on Government ships and under Government control as high as \$29 per day. Mr. L. M. Williams, a Richmond banker and a brother of the Comptroller of the Currency, John Skelton Williams, wrote several letters to Secretary Daniels of the Navy, asking for a specific denial or confirmation of President Ferguson's statement, but the correspondence which I published some time ago showed that Secretary Daniels did not undertake in any way to deny the assertion of Mr. Ferguson, and Mr. Williams is as yet without any denial of the correctness of Mr. Ferguson's statement. I have no other information on that

particular question than the statement of Mr. Ferguson and the correspondence between Mr. Williams and Secretary Daniels. But there have been a great many cases where somewhat similar conditions exist.

For instance, there was a shipyard at New Orleans long engaged upon commercial work. At the beginning of the war, in compliance with the Government's request that it build ships for it, this yard undertook to accept contracts for Government work. It was then paying its negro carpenters and caulkers \$2.50 to \$3 a day. I am reliably informed that when it sent its report to Washington showing the rate of wages paid, the Shipping Board demanded that the wages should be raised to \$6 per day. The New Orleans firm protested and said that its men were entirely satisfied, but it was advised that unless it raised the wages to \$6 per day its contracts with the Government would be cancelled. Many cases equally as unwise as these justified the statement that some wages had been "exorbitantly" increased.

It is a well-known fact that in much of the camp work laborers often getting \$10 to \$15 a day for inefficient work were permitted to rest on some week day and work on Sunday because by doing so they got double pay for Sunday work. If things of this kind which were well known to the public did not produce exorbitant wages to such wage profiteers, I fail to understand ordinary business methods.

I have been fighting for years for higher wages for farm labor, the day laborer and the mechanic, for the preacher and the teacher, and the clerk, regardless of whether employers—be they manufacturers or bankers or merchants—agreed with my view on the subject or not.

I have never suggested in any way whatever that "it was, as you say, all right for the manufacturers to make enormous profits." On the contrary, I have repeatedly said that during the two years of the European war, when we stood aside and saw civilization hanging in the balance in the desperate struggle against barbarism, when President Wilson was telling the country that we should be "neutral in thought" and that "the European War did not concern us," that the prosperity of this country was fertilized by the blood of millions of European soldiers who died in defense of civilization and thus of our country. I have said that we got rich out of the war and that we sold our manufactured products at exorbitant prices to Europe, and I have constantly criticised the manufacturers of this country who reaped undue profits after we entered the war. When the cotton mills of the South and the rest of the world were piling up enormous profits, I constantly referred to them as what a banker friend calls "ungodly profits."

In making these statements I am trying to present to you in your own language the "truth to the people in the face of propaganda intended to deceive."

In the same issue of the News and Observer in which you thus criticise the MANUFACTURERS RECORD you say:

"So the country wanted a change, did it? And it voted for Harding to get it. As far as the returns are in, the change is coming. Corn is down below 70 cents, so the corn belt is getting the change. Wheat is around \$1.70, and the wheat belt is getting the change. Cotton is unspeakably low, but the cotton man is the victim of the change, not the cause of it, for the cotton belt did not vote for the change."

I am sure that you, as well as every other intelligent man in the country, knows that Harding's election did not in any way whatever bring about these changes. You are too familiar with the whole financial situation not to know that in August, 1919, President Wilson stated to the railroad laborers that the Government was doing all in its power to break down the high cost of living, and this could only mean a break down in the price of farm products as a starting point. You know that a year ago the Federal Reserve Board, with a shortsightedness which bespeaks hopeless incompetence, or something worse, undertook to break down the price of all products and bring about drastic deflation of credit. Month after month for more than a year the Federal

Reserve Bank of Richmond has been sending out letters to member banks warning them to restrict credit and warning them against high prices of all commodities. You know that Secretary Houston, the most sinister figure of the age, has over and over again during the last few months stated that the Government would take no action whatever toward stopping the breakdown of prices, and that he insisted prices should be lower and would be lower. Under these conditions any man would have been a fool who bought anything that he possibly could do without. No individual consumer, for instance, would buy anything not absolutely necessary when Secretary Houston and the Federal Reserve Board day after day were telling the public that prices would inevitably break. Under these conditions it is inconceivable that any ordinary intelligent cotton-mill man would have bought cotton, for he was being warned by the Government that cotton would inevitably decline, and he has watched to see how far down the Government would break the price of cotton. The Federal Reserve Board has carried on a campaign which will cost this country more than the entire war cost us. The decline in farm products, aggregating from \$5,000,000,000 to \$6,000,000,000; the stagnation in business and the closing of factories to which you refer, and unemployment, estimated by the Government itself at 3,000,000 men, are all the definite inevitable outcome of the work of the Federal Reserve Board during the last 12 months, and certainly the election of Harding had nothing to do with the Federal Reserve Board's actions of the last 12 months.

I am inclined to believe that the work of the Federal Reserve Board has been due more to stupidity and incompetence and to the narrow vision of narrow-minded banking interests in this country and abroad than to any other cause, but certainly we have now the drastic effect of the campaign of drastic deflation. Early last winter, when I first learned of the extent of the Federal Reserve Board's intention to carry on this campaign of restricting credits and of breaking down prices and wages, I aggressively fought the plan both in personal correspondence and through the MANUFACTURERS RECORD. I believe the MANUFACTURERS RECORD has been the only paper in the country that has unceasingly for 12 months predicted that if the Federal Reserve Board carried out its plan it would inevitably bring about chaos in business and create a Bolshevistic spirit such as this country has never had to fear. Every prediction which I made during 12 months on this subject has been literally fulfilled.

Senator Robert L. Owen of Oklahoma, who was one of the creators of the Federal Reserve Banking Bill, and who probably understands broad financing better than any man on the board, in a letter which will be published in this week's issue of the MANUFACTURERS RECORD says that the action of the Federal Reserve Board against the welfare of the country has been "unforgivable." He denounces the policy of deflation and the deflation of prices of stocks and commodities as without one single excuse. As Senator Owen is a leading Democrat, and as he was for years a banker, and prior to helping to create the Federal Reserve Bill spent a long time in Europe making a careful study of the banking methods, his views on the subject are worthy of consideration. I have criticised the board as vigorously as I could command language to do, but Senator Owen goes even further and denounces its action as "unforgivable."

Are you not thus seeking to prevent your readers from getting at the truth when you undertake to throw upon the Harding victory the responsibility for the situation in business and in farming which every man of intelligence knows came about long before Harding was elected? The victory of Harding was neither a personal victory nor a Republican victory; it was a victory of American people who realized that the unwise action of the Federal Reserve Board was heading us straight to financial ruin, and they did not want a League of Nations which for months has been carrying on a world-wide campaign for restriction of credit, which means a breakdown of prices in this country as well as elsewhere. Whether the Federal Reserve Board and the League of Nations are leagued together in this world-wide campaign for restriction of credits I do not know; certainly they are working in unison, whether they are working unitedly or not.

However contrary to your views are the statements made in this letter, I trust that in the interest of the truth, and I have made no statement that is not true, you will give it space in an early issue.

RICHARD H. EDMONDS.

Southern Pines, N. C., November 22.

\$400,000 Office and Theater Building at Tulsa.

Tulsa, Okla., December 6—[Special.]—Construction work on a 10-story theater and office building here will begin early in January, between 5th and 6th streets, on South Main street. It will be specially designed for use of physicians and dentists, eight floors to be devoted to office space and the two ground floors to a theater. The cost of the improvements will exceed \$400,000. It will be completed late in 1921. The building will be 50x140 feet, of reinforced concrete construction and fireproof throughout.

The theater will be one of the most modern in the entire Southwest, it is said. Fully \$75,000 will be spent in interior decorations alone.

Dan Hunt, department store owner, and one of the leading local merchants, is owner and builder.

Graphite Plant to Begin Operations at Once.

The Taylor Graphite Co. of Crest, Ga., recently formed with J. E. Taylor, president, is completing a milling and concentrating plant with a capacity of 45 tons of ore per 40 hours. The ore is of crystalline flake type seated in mica, containing from 3 to 26 per cent in graphitic carbon. The company has holdings of 70 acres, and the mine is located four miles southwest of Crest. Milling and concentrating equipment costing \$25,000 has been installed, and the plant will be put into actual operation by December 15. It is the expectation of the company that additional equipment will be installed next year to increase the plant's capacity to 500 tons of ore a day.

New Section for Dock at Norfolk Shipyard.

Norfolk, Va., December 4—[Special.]—The fourth section of the floating dock at the plant of the Norfolk Shipbuilding & Dry Dock Co. near here has been launched and is now being completed. This new unit will give the dock a much greater lifting capacity than it has had, making it possible to dock a vessel of up to \$5000 tons and 330 feet in length.

The section is 60 feet wide and 80 feet long. In its construction 300,000 feet of lumber and 50 tons of steel and iron were used. Six pumps driven by 20-horse-power electric motors will discharge 2600 gallons of water a minute. It can be entirely emptied of water in 18 minutes.

Rapid Progress on Big Paper Mill.

Splendid progress is being made on the additions under way for the immense paper mill of the Champion Fiber Co. at Canton, N. C., full details of the development having been previously published in the MANUFACTURERS RECORD.

When the new mill is completed and in operation about 3000 additional workmen will be required, and plans are already under way for the erection of numerous small cottages for the workmen. It is expected that the completed mill will call for a population at Canton practically double its present size.

To Establish Distributing Warehouse at Memphis.

A warehouse and general offices will be established in Memphis, Tenn., as a branch of the Galion Iron Works & Manufacturing Co. of Galion, O., according to an announcement by the industrial commissioner of the Memphis Chamber of Commerce. Quarters for housing the Memphis branch have already been secured, and it is understood that the company will serve its trade in Arkansas, Mississippi, Alabama, Kentucky, Southeast Missouri and Tennessee through the new branch. Rumors state that a factory will be erected in Memphis later.

\$250,000 Office Building for Atlanta.

Atlanta, Ga., December 4—[Special.]—Atlanta's oldest theater has been sold to make way for a new \$250,000 office building, the construction of which will begin as soon as the historic Bijou has been razed. The property involved is located almost in the center of the business district.

C. F. Palmer is promoting the project, and associated with him are Judge John S. Candler and Asa W. Candler. A 30-year lease has been taken on the site for a consideration stated to be \$1,000,000.

What Is the Future of the Railroads?

AN OLD OPERATOR AND OFFICIAL POINTS OUT INCONSISTENCIES OF PRESENT SITUATION AND FURNISHES FOOD FOR THOUGHT.

[Herewith is presented a thought-provoking article from Mr. V. E. McBee, a veteran operator and official of Southern railroads. "Bunch" McBee, as he was familiarly known to a wide circle of friends in the old Richmond & Danville days, is a graduated engineer who has located, built and operated more miles of railroad than any other man in the South. He was identified with the Richmond & Danville for 26 years, with the Seaboard Air Line for 10 years, and has since then been receiver for several short-line roads. He never failed to make a railroad pay under his charge, and he never had trouble or misunderstandings with his employees. He, therefore, assumes to know whereof he speaks when he declares, as he has recently done, in reference to the present situation in the railroad world, that conditions must change, or else "between avaricious owners and a greedy set of employees, under a mock management of railroad officials, who can cover their lazy incompetence with Government payments of deficits, we will rapidly drift into financial oblivion."—Editor Manufacturers Record.]

Greenville, S. C., November 29.

Editor Manufacturers Record:

I have hesitated for some time to express an opinion of the railroad situation under the Esch-Cummings Act, and do so now with much trepidation.

There is not, nor can there be, congealed business compatibility on the subject, because it is viewed from so many different, selfish angles.

The moneyed interests own the properties, the labor unions desire control, and the public demands better service. The Government undertook management and physical operations to the tune of a loss of \$902,000,000 in two years, and Congress poulticed the project with a temporary act to guarantee the ownership management and met further loss of \$634,000,000 in six months, but the end is not yet.

In returning the properties to the owners, the Government also guarantees interest and dividends upon book valuation of bonds and stocks for two years.

And the people feebly acquiesced in largely increased freight and passenger rates, to counterbalance a corresponding increase in employees' wages, at a time when post-war inflated currency was said to be the prime cause of the high cost of living.

Therefore, will not instantaneous deflation of the currency, without a reduction of railroad employees' wages and freight rates, cause such a conspicuous relative difference in the value of articles shipped to the rates applied as to embarrass business and deplete railroad earnings?

Take cotton, for instance, at 40 cents per pound, and increase rates 40 per cent, and the product will bear it; but reduce cotton to 15 cents, and allow the increased rates to remain, and the producer cannot stand it without serious loss, unless the officials of our great Government propose to perform miracles and retain the length of the candle while it burns at both ends.

The algebraic example is applicable to every article on the rate sheet.

But in addition to increasing the rates, the Government has lost \$1,536,000,000 in operation in 30 months, which is exclusive of the disposition of the pitiful balance of the revolving sum of \$300,000,000, which is said to be a mere "drop in the bucket" to amounts hereafter required to sufficiently strengthen the coefficient of safety for the railroads to give ample accommodations and dispatch to business, according to the opinion of railroad officials. If these figures are correct, the Government has shouldered a net loss of \$1,834,000,000, to say nothing of the prospective interest guaranteed on stocks and bonds for two years. As I understand it, the railroad officials are in nowise responsible to anyone for an honest, economical management of affairs, except perhaps a superficial inspection or requested guidance of the Interstate Commerce Commission, but they with no power to hire and fire.

Is it possible for the country to continue to follow such a financial phantasm of fox fire much further? A majority of the people object to the Plumb plan, but it is not dead, and may awaken with increased vigor if better service and less loss is not quickly forthcoming. The Pennsylvania, the Southern and perhaps the Missouri Pacific did not accept guaranteed loss for the first six months, and, owing to their superior management, will possibly be able to shift for themselves. But what about many others, some of whom are evidently "lying down" on the Government and not endeavoring to give economical management, but are joy-

riding while the people pay the deficit? To my mind, there is but one practical solution in order for the Government to turn this veritable bruin loose and escape possible financial ruin: that is, have the Interstate Commerce Commission, under Congressional resolution or amended act, serve notice on all railroad officials who do not make their respective roads pay upkeep, operating expenses, including taxes, and at least one-half of their fixed charges and dividends on book value of issue, that such roads or systems will forthwith be put in hands of receivers, with further notice that all general officers and officials in charge or connected with such roads or systems will be automatically discharged.

The people own an equity and are guarantors, and by law dissension or strife among owners is sufficient cause for receivership, and under control of the courts the receiver and all agents counting cash would be required to give bonds for faithful, honest service.

And such direct method of control by wise judges would eliminate "strife" injunctions and put every employe on his personal voirdire, and in all cases of obstruction to commerce or unreasonable delay to cars or freights, and complaints of injustice from shippers or employes, the courts would at all times be open for quick adjustments. If, however, at any time the owners felt they could finance and shift for themselves, and relieve the Government of financial responsibility, they could apply for reorganization and by public sale "slough off" their burden of old debts, or if under an honest economical management the court should find that such properties could not be made to pay operating expenses and taxes, they would be sold and junked. This would leave the principal trunk lines and all roads judiciously located and honestly managed intact, and the Government would perhaps be liable only for the payment of a small balance of deficit on the two years' guarantee; otherwise, from present outlook, will be required to pay quite all of the interest as it comes due.

The late Henry Fink, one of the most complete railroad men of this country, said receivership was the poetry of railroading.

The vicissitudes of war have given the owners, officials and labor unions a stranglehold on this Government, and they are as persistent as yellow jackets around a cider press, and nothing can break them loose but the strong arm of the courts, with ample jail facilities adjacent.

But this paper is not offered as being equal to or as far-reaching as the Plumb plan, nor as a plumb complete plan, but it's victuals for thoughts of wiser men than I.

V. E. MCBEE.

Contract for Dredging Tampa Slip Awarded.

Tampa, Fla., December 6.—[Special.]—The Board of Port Commissioners has awarded to the Seaboard Dredging Co. the contract for dredging a slip in the city property at the west side of Ybor estuary. It will be 800 feet long, 250 feet wide and provide a depth of 30 feet. Work will commence as soon as the company's dredge can be brought from another job now nearing completion, and it is hoped to finish the slip within six months. Nearby large warehouses will be built by the city in the near future.

It is estimated that the work will necessitate the removal of about 380,000 cubic yards of materials, which will be pumped on the adjacent low land and afterwards graded.

Shall St. Lawrence Waterway Be Developed?

EXHAUSTIVE INVESTIGATION AS TO FEASIBILITY OF GREAT PROJECT—ARGUMENTS FOR AND AGAINST PROPOSED NEW TRANSPORTATION ROUTE FOR SEAGOING SHIPS—VAST HYDRO-ELECTRICAL DEVELOPMENT AS INCIDENTAL FEATURE—FAVORABLE ACTION IS FORECAST.

By CHESTER T. CROWELL.

It is possible to open the St. Lawrence River so that an Atlantic ocean steamer can go direct from Liverpool to Duluth for a cargo of wheat. If this improvement in the river is made, a cargo of dressed beef could be shipped direct from Chicago to Hamburg. A steamer load of automobiles could be taken on board at Detroit and go direct to South America. Cleveland and Buffalo would thus also become ocean ports, not to mention Milwaukee and several other smaller places.

The definite proposition to make this improvement, apportioning the cost between the Canadian and American governments, is now pending, and an investigation of it is being made by an International Joint High Commission on Waterways. It is estimated that incidental to this deepening of the St. Lawrence River channel there would be developed approximately 4,000,000 horse-power of water-power. What this would mean in coal conservation can scarcely be imagined; the power would be available for the manufacturing sections of New England and Northern New York, as well as the manufacturing districts of Canada. It would lift from the railroads of New England a burden of coal carrying which has proved more than they could handle during several recent winters, notably during the war.

The Welland Canal now provides passage from Lake Erie to Lake Ontario. The distance from Montreal to Lake Ontario via the St. Lawrence River is 181 miles. The St. Lawrence is an international boundary as far as St. Regis, or 131 miles. Approximately 135 miles of the total distance is already navigable for ocean-going steamers. This means that 46 miles must be improved, a distance about the same in length as the Panama Canal, and made up largely of rapids, for the St. Lawrence River falls 90 feet in 65 miles. But 48 feet of fall occurs in 12 miles. This is in the international section. In the exclusively Canadian section that would have to be improved the river falls 130 feet in two stretches of 14 and 8½ miles each.

One of the objects of the present hearing is to determine the cost of the proposed improvement. Estimates thus far range from \$250,000,000 to \$500,000,000, and it is generally agreed that no one can accurately forecast under present world conditions just what the cost would be. Neither is it possible to determine just how much time the work would require. An effort was made by a man opposed to the project to pin Herbert Hoover down to an estimate based on the time consumed in other large engineering projects, but he stated that the time consumed in one engineering project does not form a reasonable basis of estimate of the time required for another. In a very vague and general way it has been estimated that this project might require 10 years.

Assisting the international commission is a body of engineers who are studying the details of the problem. There is no question as to the feasibility of the task. The engineers are to study methods and costs.

The most interesting phase of the preliminary investigation is the statements of engineers and statesmen on the subject of what such a vast engineering feat would be worth to the people of the United States and Canada. There are great differences of opinion. The project is frankly and openly opposed by representatives of the greater Atlantic ports, such as New York and Philadelphia. The Atlantic Deeper Waterways Association has adopted resolutions protesting against it. Attention is called to the fact that the barge canal, built by the State of New York to connect the port of New York with Buffalo, was supposed to accomplish approximately what the larger project sets out to accomplish, and that the barge canal has not been a success.

Dr. George Otis Smith, director of the United States Geological Survey, discussed the problem of the barge canal when he appeared before the international commission. He said the canal would receive a great impetus from the St. Lawrence project because the water-power to be developed would stimulate manufacturing along the canal and bring it into more general use.

Nelson Spencer, representing the City Club of New York, has asked the commission to make a careful study of the required changes in lake harbors to accommodate ocean shipping. He takes the position that opening the St. Lawrence would be only a first step, and that the deepening of harbors and channels in the lakes would be even more expensive than the original project. He suggested that a much smaller amount of money spent upon the barge canal to provide it with suitable terminal facilities would accomplish approximately the same results as the St. Lawrence project. He also raised a question as to where return cargoes are to come from in the event ships are asked to go to Lake ports for the exports of the interior States.

William R. Tucker, representing the Philadelphia Board of Trade, also opposes the project. He and most of the other Atlantic port representatives take the position that this project will not really change the present shipping route of goods from the interior, but that the people of the Atlantic port cities will pay a very large proportion of the cost of the proposed improvement.

Edward R. Carhart, former president of the New York Produce Exchange, and chairman of its committee on canals, predicts that 10 years hence this country will not be exporting much grain or meat, so that by the time the St. Lawrence project would be completed its principal tonnage would be non-existent.

George Clinton covered much the same ground in his statement of opposition.

William C. McCarroll asserted that the facilities of the port of New York are admittedly inadequate at present, but that definite plans are in existence for improvements to the extent of \$100,000,000, and that some of the contracts have already been awarded. He said that the port of New York now has 341 miles of improved waterfront, with 646 miles available for future improvement.

The Atlantic Deeper Waterways Association warns the international commission against assuming that a great proportion of the Lake tonnage is available for export; that most of this tonnage is coal and iron which is strictly domestic business, while only a part of the grain handled on the Lakes is for export.

Wilfred H. Schoff, secretary-treasurer of this organization, said that not much more than 1,000,000 tons of the wheat originating in territory tributary to the Lake ports is for export. He also called attention to the fact that the St. Lawrence River route is available for navigation only seven months of the year. He pointed out that most of the Lake harbors are about 21 feet deep, and said this is not sufficient for ocean steamers.

Lewis Nixon, Public Service Commissioner of the State of New York, brands the project as utterly impractical. He spoke as a practical shipping man who has had many years of experience. He asserted that ocean ships will not thread the long and tortuous course of artificial waterways to get to the Lake ports. He also takes the position that each navigation problem develops a style of boat suited to conditions, and that composite boats to meet two different sets of conditions, such as lake and ocean navigation, are not a success. He thinks the lake boat is best for the lakes and the ocean steamer best for the ocean, and that neither can be arranged to operate economically in both places. Mr. Nixon called attention to the heavy cost that would accrue to ship-owners during the time large vessels were going through locks and canals. He says they cannot make more than five miles an hour in such waterways, and that they cannot pass through a lock in less than an hour and a half.

Julius H. Barnes, president of the United States Grain Corpo-

ration, is one of the most enthusiastic and best-informed advocates of the St. Lawrence project. He said that the overseas requirements for bread grains this year will be 600,000,000 bushels, of which North America must furnish about 400,000,000 bushels, and that 300,000,000 bushels will come from the territory tributary to Lake ports. He has furnished the international commission elaborate statistical statements on the subject of the transportation problem, and says that in the emergency of the World War the railroads and the Atlantic ports failed to meet the task. In addition to the bulk cargo, such as wheat and dressed meat, he expressed the opinion that such ports as Chicago, Detroit, Cleveland and Buffalo can furnish a very attractive package trade. By that he means cargo in less than shipload quantities. One of the main contentions of the Atlantic ports is that their supremacy in shipping enables the interior shippers to assemble package cargo along the Atlantic seaboard and thus find foreign markets for goods which could not otherwise be exported.

Mr. Barnes calls attention to the superior grain-loading facilities along the Lakes. There are three elevators for loading grain on ocean steamers at New York, two elevators at Philadelphia and five at Baltimore, while Chicago alone has 22, Duluth and Superior 13, and Fort William 24. Mr. Barnes has prepared a table showing the rates for grain on the New York barge canal, and takes the position that instead of lowering the cost of shipping from Buffalo to New York, the canal has a tendency to increase its own rates with those of the railroads. He does not think it will ever be a great factor in the movement of grain from the interior. He showed that the canal rate was 2.54 cents a bushel in 1900 and 9.08 cents a bushel in 1918.

Mr. Barnes declines to join the issue with those who think that ocean-going ships will not enter the Lakes. He says it makes very little difference whether they do or not, because there can be no issue on the subject of the ability of Lake steamers to go down to Montreal if the St. Lawrence is improved. He points out that they can do this for very little additional cost; he estimated that they could reach Montreal for an additional charge of about two cents a bushel, while the present cost from the Lakes to the Atlantic seaboard is about 12 cents.

As to the prospective disappearance of export wheat, he is not at all pessimistic. He calls attention to "an enormous potential expansion in the production of bread grains in the United States through increased production on lands now tilled." The average yield in this country, he said, is between 13 and 15 bushels of wheat to the acre, while in Europe it is more than twice that amount, in some countries being between 40 and 60 bushels. If a part of the saving in transportation costs finds its way back to the farm, he estimates that it will enable the farmers to fertilize and till their lands more effectively. "If only one bushel an acre can be added to average production in this country, it would increase our crop by 60,000,000 bushels," he said.

"Suppose the farmer got the entire 10 cents of saving in transportation by the lake steamer going to Montreal," he continued; "it would mean about \$336,000,000 a year to American farmers and \$44,000,000 a year for Canadian farmers. Perhaps it would be fairer to say that the farmer would get only half of the dime saved on each bushel. In that event you halve the figures, but they are still well worth considering. Such an economy in grain transportation would be felt on the farms as far back as Oklahoma."

William C. Redfield, former Secretary of the Interior, is another warm advocate of the St. Lawrence project, and he brings to bear a national point of view. First he pointed out that the railways of New England are floundering under the burden of supplying those States with coal, while the water-power of the proposed St. Lawrence project would lift the larger part of that task from them.

"This project," he said, "cannot be adequately viewed except in the light of the development of the whole nation. There are available in the United States about 50,000,000 horse-power of water-power. Recent legislation makes possible the development of that power. Four-fifths of it is west of the Mississippi River. Unless waterways supplement our railroads it will be utterly impossible for them to bring the products of the interior to the Atlantic seaboard. Even double tracks for all of their lines will not do it. We are now working in the direction of a logical division of freight to the carriers best suited for each class. The short haul is going to the motor truck. The bulky heavy freight, such as coal and ore and grain, is going to the waterways. These two

will not kill the railroad nor even offer serious competition. They will, and always have, proved a great aid to the railroad. I am surprised that New York should oppose this great project. New York lives off the nation. What prospers the nation prospers New York. It will always be the great city it now is. Nothing could contribute more to its development than the distribution of millions of horse-power of water-power in the territory tributary to it.

"To doubt the usefulness of such a project as this is to doubt the future of the whole nation. Those who do not think it will be used remind me of the men who laughed at the first map projecting a railroad from New York to the Mississippi River. Such a map was presented in New York in 1829, and was hooted and laughed at.

"I have a letter which was received by the chief engineer of the Erie Railroad arguing against the use of steam engines on that road and maintaining that horses were much better suited to its needs."

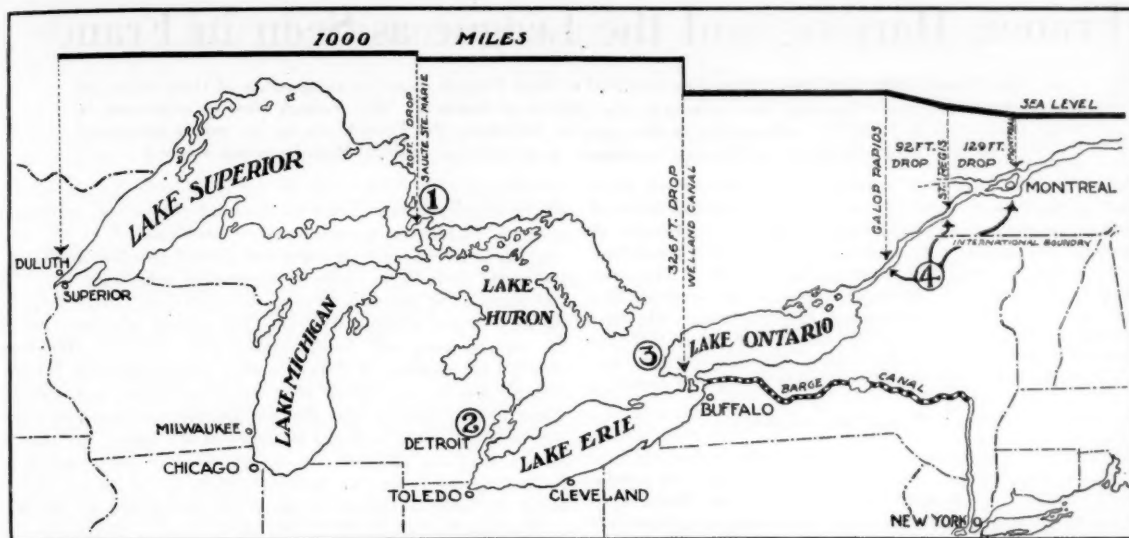
Herbert Hoover also rebuked the people of the Atlantic ports for opposing the St. Lawrence project. "They have nothing to gain by this shortsighted policy," he said. "If grain production in this country is not stimulated, it will cease to be exported within 10 years. In that event New York will not be a grain-shipping port, anyway. But if transportation is made cheaper, the export trade will live and New York will continue to get a full share of the wealth of the country. The railroads are not equal to the task of carrying all the freight of the country. During recent years the grain crop has brought such a car shortage as resulted in differentials. This is merely another name for a premium on cars, and it has amounted in some instances to 20 cents a bushel and more. The water-power which would go to Canada from the St. Lawrence project would not be lost to the United States, because it would save our coal. Canada uses American coal, and our coal supplies are limited. The attitude of mind that objects to this great project is the same that objects to labor-saving machinery."

Charles Whiting Baker of the American Society of Mechanical Engineers said: "This promises to yield a greater public benefit in proportion to its cost than any engineering work of the first magnitude ever undertaken." Mr. Whiting tells dramatically of the shipping problem in New York during the war. There was such congestion in the railroad yards, he said, that refrigerator cars had to be unloaded far back from the docks. Carcasses were loaded on trucks and carried to the wharves, then handled carcass at a time onto the boats. Rain stopped the work.

Mr. Whiting calls attention to the fact that this is not a new project by any means, but that surveys were made for it by an American commission in 1900, and they found it entirely feasible. He said that the factor of the ocean-going ship to Europe is not as important as some persons might think, and then he pointed out that the freight between the Great Lakes and the Atlantic seaboard is greater by far than all of our freight to Europe. He quotes from statistics gathered by a national commission which studied this problem in 1897.

Mr. Baker stresses a very important point with reference to the cost of reaching the lake ports when he says that the distance between ports is not nearly so important in the cost of operating ships as the cost of loading and unloading while in port. This brings up the interesting comparison between the port facilities of the Lakes and the Atlantic coast. The machinery for economic and prompt loading of vessels at Lake ports is unexcelled in the world, while the Atlantic ports suffer from serious congestion. The cost of keeping a ship tied up at a wharf or lying in the harbor awaiting a chance to load or unload is hundreds of dollars a day for even the smallest ocean-going boats, while it mounts into the thousands of dollars for the larger vessels.

Mr. Baker suggested to the representatives of the Atlantic ports that they have a much better possibility for protection of their business than opposing the St. Lawrence project; they could build a waterway of their own which would make New York the ocean terminal instead of Montreal, as proposed in the present project. He calls attention to the fact that the Hudson can be opened all the way to Lake Champlain by dredging above Poughkeepsie. By such a project, he said, a shipload of flour could be brought from Minneapolis to New York without unloading and there be placed on an ocean-going vessel. With reference to the



From the New York Times.

STEPS IN MAKING THE GREAT LAKES AN "AMERICAN MEDITERRANEAN."

1. Soo Canal, connecting Lake Superior and Lake Huron, completed at cost of \$27,000,000. 2. Deepening St. Clair Flats and Detroit River, connecting Lake Huron and Lake Erie, completed at cost of \$16,000,000. 3. Welland Canal, connecting Lake Erie and Lake Ontario, and avoiding Niagara Falls, soon to be completed at cost of \$65,000,000. 4. Proposed improvements in St. Lawrence to complete the shipway to the ocean; distance 181 miles, 113 international boundary, rest in Canadian territory; cost estimated at \$200,000,000 to \$250,000,000. Chief problem here about 40 miles of rapids.

assertion that the Lake harbors have only about 21 feet of water, while the larger ocean-going boats require about 30, he declared that there are a great many ocean-going boats which can operate safely in 21 feet of water. He does not think the depth of Lake harbors presents a serious handicap to the usefulness of the St. Lawrence development. These smaller vessels, he said, suffer most from the enormous costs of loading and unloading at New York. They would gladly seek such ports as the lake offers and save money by going there.

Mr. Baker thinks it is by no means impossible to develop a new kind of lake steamer that could operate on the Lakes during the rush season, then make the open sea during the months when lake traffic is closed and carry coal to New England or South American ports. He showed that this would add five months a year to the usefulness of lake boats, and he thought the increased earnings would well justify the expense of developing a new type.

Dr. R. S. McElwee, director of the Bureau of Foreign and Domestic Commerce, is one of the most enthusiastic of all the advocates of the St. Lawrence improvement. And he bases his argument upon a ground particularly galling to the New York interests which are opposing it.

He plainly takes the position that this new route is absolutely necessary because the port of New York has ceased to be economic and is strangling the foreign commerce of the country. He said that the cost of shipping through the port of New York has grown so heavy in recent years that hundreds of articles for which there is an excellent foreign demand cannot be exported. He says he has seen trucks loaded with merchandise standing in line two days waiting to get to the side of a vessel. Sometimes a truck will stand in line all day, then the driver will unhitch the horses at night and come back in the morning, waiting for an opportunity to get to the vessel. He said the foreign commerce of the United States has increased 400 per cent during a period in which the facilities of the port of New York have scarcely shown any improvement at all. This has resulted in ever-mounting charges for uneconomic handling of freight. The world can afford to pay any charge levied for certain articles of prime necessity, but it will dispense with numerous other articles when the charges are excessive. It is these numerous other articles that are not being shipped at all because of the conditions in New York. To support this charge he has in his possession actual vouchers of shippers showing what it costs to get freight on board in New York harbor. Some of these vouchers have been read into the records of the international commission. One is for a shipment of tumblers and vases valued at \$25 and consigned to a South American firm. The transportation charges, by the time the goods were on board

the vessel, amounted to \$54.86. Other vouchers covered such articles as crepe paper and goods which are not items of vital necessity that people must have or starve. It is his opinion that if the heavier shipments can be diverted some other way, the port of New York would be able to handle millions of tons of goods which cannot now even be sold because of the congested port conditions.

Hearings have been in progress for several months on this great engineering project. They will continue to be held for some months in the future. The press of the Lakes territory supports the project warmly. There is evidence that the public of that part of the country is thoroughly aroused to demand action.

The feature of the problem from their point of view is that the saving in transportation costs will come back in part to the farm. If 10 cents a bushel can be clipped from the cost of shipping wheat from the Northwest to the Atlantic Ocean, it is generally agreed that about half of the saving will finally reach the farmer, perhaps more than half. If it does, he will grow more wheat to the acre and plant many thousands of acres not tilled at all. Unless this is done, it is agreed that 10 years will see the end of the American wheat export trade. What that might mean to our foreign commerce, the stability of exchange and the conditions of life in Europe is a matter of conjecture—but of very sober conjecture. How much wheat can or will be grown seems to simmer down to a problem of what the world will pay for it. When the world buys wheat it also buys all the transportation that went into the delivery of the wheat. The man who eats a slice of bread consumes also the transportation. There is a general opinion among those who favor this project that unless the transportation charge is reduced the man may have to get his wheat elsewhere, for the simple reason that the American farmer cannot go on indefinitely producing export wheat without getting more money for it. There is a great reserve strength of potential production—at a price.

There is also in prospective solution the annual car shortage and the congestion of railroad cars along the Atlantic seaboard, waiting for return cargo and strangling the commerce of the country while they wait. The railroads are very hesitant about returning them empty. If this vast freight can be diverted to a water route it may mean the saving of billions of dollars in rolling stock and additional millions of loss for lack of rolling stock at vital periods.

At the conclusion of the hearings and of the engineering surveys the international commission will report to the two Governments its recommendations. From the testimony thus far gathered it is not unreasonable to forecast that the report will be construed as favorable to the project.

France, Harding and the League as Seen in France

The Manchester (England) Guardian republishes from French papers a symposium of their views on the election of Senator Harding as it relates to the League of Nations. The French view as expressed in these statements is decidedly unfavorable to the League, indicating the French are by no means enamored of it. The Guardian's summary of French comments is as follows.—Editor Manufacturers Record.

The result of the American Presidential election aroused much interest in the French press. It was welcomed on most sides as forming a death-blow to Wilsonianism and to the League of Nations as constituted at Versailles. The question whether Mr. Harding might be won over to the French point of view (as opposed to the policy of "disordered dreams" followed by Mr. Wilson and by England) is discussed by "Pertinax." He considers that much spade-work in this direction might be done by the French representatives in the United States during the time that will elapse before Mr. Harding actually comes into power.

French Prognostications.

The "Temps" (Conservative), November 5, trusts that the victory of Mr. Harding will not "compromise the work of human solidarity realized on the battlefields of France and Belgium by the common effort of our soldiers and of those of free America." "Between the League of Nations created by the Peace Conference and his (Mr. Harding's) conception of an association of nations for the safeguarding of peace, conciliation is not impossible."

"Action Francaise" (Royalist), November 4. M. Bainville writes:

"The victory of Mr. Harding and the Republican party is a victory of political reason, frankness and honesty. * * * Wilsonianism has been eliminated. Our only regret is that it is rather late in the day. The mistake of the French negotiators of the treaty lay in their belief that Wilsonianism was American in essence. In reality Mr. Wilson brought to the Conference only the old ideas which for long had been going the round of Europe. Mr. Wilson rediscovered 1848. * * * But the United States are determined on following an American policy. * * *

"The League of Nations implied a universal policy, a universal alliance, such as does not exist, and can only be a lie or a delusion. * * * Having submitted to the League of Nations on the pretext that it was wanted by the United States, is France going to cling to it now that the United States repudiate it? This would be the culmination of our mistakes. * * *

The Impending Revision of the Pact?

"The revision of the pact is now more or less certain. We ask once more what are the instructions of MM. Leon Bourgeois, Viviani, and Hanoteaux, French delegates to a League of Nations which, since the American verdict, is destined to change its character or to expire in all but form. We surely do not aspire to imposing the Covenant on Mr. Harding and on the millions of American men and women who rejected it yesterday.

"Populaire" (Paris, Soc.), November 8.—Paul Louis writes that the victory of Mr. Harding has struck "a death-blow to the League of Nations."

"The combination, of attractive appearance, which the most subtle bourgeois ideology had constructed in order to deceive the proletariat, will now crumble away. * * * The vanity of the League had been attested by the affairs of Fiume, Vilna, Persia, Egypt, etc. And now the whole thing has fallen to pieces."

To Win Over Mr. Harding for France.

"Echo de Paris" (Nat.), November 4—"Pertinax" writes of the election results:

"The League of Nations, dear to Mr. Wilson, is necessarily assailed in all its wealth of nebulous illusion (and this is the weightiest portion of its contents). But this need not involve any further display of 'disinterestedness' in European affairs on the part of America. There are two ways in which the United States may concern themselves with the affairs of the old continent: They may complicate and aggravate them with the disordered dreams of their humanitarians, Biblical reformers and drawing-room Bolsheviks. This was the way followed by the Government which expires today.

"(Or else) they may help in the establishment of a certain degree of international order by applying themselves, in concert with us, to regulate certain concrete problems. * * * This way lies in refraining from vague and general promises and taking the world as it is, in order to accomplish something. * * * The interests of America, if properly understood, would point to the need of her working with us. The realists who have gained the victory today will finally realize this. * * * We hope that the mouthpieces of French policy, while respecting the formalities due to the Wilson Government, will find means to instruct in our point of view the new Republican personnel which will be working out in silence its policy of next year. We may be certain that our English friends, whose plans are wonderfully fulfilled by the League of Nations, will do all in their power to bring the future occupant of the White House and his advisers to their point of view. * * *

What Mr. Wilson Did.

In the "Intransigent" (popular evening daily), November 6, Leon Bailby writes:

"Wilson, who is today overwhelmed by reproaches in his defeat, does not perhaps deserve such harsh treatment. He was a sincere and disinterested idealist. Certain of his 14 conditions were indeed troublesome and excessive. But that does not do away with the fact that it was from the moment of their publication that the great moral collapse of Germany may be dated, and her ensuing military collapse."

In the "Journal Des Debats" (Cons.), November 5, M. Gauvain writes that it is wrong to blame the Clemenceau Cabinet for not having realized sooner that Mr. Wilson did not represent the United States. M. Clemenceau was bound to be careful in his attitude towards the omnipotent head of the United States.

"Where M. Clemenceau was wrong was in not trying to win over Mr. Wilson from the beginning, and gently to straighten out some of his prejudices and adapt his ideology to the necessary practical solutions. * * * M. Clemenceau limited himself to preventing the French press from reproducing all the criticisms formulated in the United States against the President, and even all the news, of incontestable authenticity, which might displease him."

Texas Shipping Blooded Cattle to Mexico.

Monterey, Mexico, December 4—[Special.]—Ranchmen and dairymen of Mexico are arranging to import many thousand head of blooded cattle to this country from the United States. The movement had its origin with the Texas Farm Bureau Federation, of which C. O. Moser of Dallas is secretary. It is being fostered by the various pure-bred cattle organizations of Texas, including the Holstein Cattle Club, the Texas Jersey Cattle Club, the Texas Shorthorn Breeders' Association and the Texas Hereford Breeders' Association. Practically nothing has been done toward improving the breed of range cattle in this country, outside a few American-owned ranches situated in the northern tier of States.

Flour Being Milled at Amarillo, Tex.

Amarillo, Tex., December 4—[Special.]—The Great Western Mill & Elevator Co.'s new plant has begun operations. The first deliveries were made by the new mill, which is located on the eastern edge of the city, on last Friday. The machinery and equipment represents the most modern in flour-mill design, and will give the plant a daily capacity of 800 barrels every 24 hours. The mill has been so designed that additional units can easily be added permitting a daily output up to 2000 barrels. It is now the second largest establishment of its kind in the State, and one of the largest in the South.

The Economic Condition of Germany

By EDWIN C. ECKEL.

IX.

Europe is now going into the third winter since the end of the war. Conditions are still unsettled, and at times the news will sound bad. But basally there has been a good deal of improvement, and the facts are apt to be better than the news items sent out from inspired sources.

In considering the various news items which reach the United States relative to economic conditions in Germany, it will be well to bear in mind that practically none of them come from impartial sources, and that in almost every case you have to deal with organized propaganda on one side or the other.

In trying to arrive at the truth you must, first of all, draw a very sharp distinction between the industrial condition of the country itself and the financial condition of its temporary government. Industrially, Germany is in really very good shape, but from the standpoint of Government finances conditions are very bad indeed.

In this article an attempt will be made to consider the various phases of the matter and to outline impartially the conditions which face the new German Republic.

The Question of Military Losses.

The war has been over now for two years, and today I think we can safely admit that Germany is a country inhabited not by devils, but by human beings much like ourselves. For the moment we have to accept the fact that Russia is mad; that Italy is not far from the same condition, and that Austria has been torn apart into a number of new nations whose future course is still uncertain. Now, if to these grave facts we have to add a Germany mortally wounded, the outlook for all of Europe is black indeed. So it will pay us to try to arrive at conclusions based not upon our honest objections and hostility to persons and occurrences of the past, but upon our opinions as to the actual conditions of the present and the promises of the future. Let us, at any rate, attempt such a study.

In 1914 the German Empire was admittedly rich and industrious. In the six years that have elapsed Germany has suffered losses due to (1) four years of war, (2) to two years of an uncertain and inconclusive peace, and (3) to the internal policies that have been pursued. It will be worth while to consider each of these in turn and to try to place some sort of a value on each kind of loss. If we find that the total has not been too heavy, we may fairly conclude that the future of Europe, and of the world in general, is not all black.

First, as to the question of military losses sustained by Germany during the four years of active war. These were tremendous, for though Germany escaped the wreckage and devastation of homes, of farms and of factories that were suffered by France and Belgium, she lost more heavily in men. And, in the long run, men are worth more than houses or fields or mills.

The German losses in men were heavy because, as a matter of fact, Germany set out to conquer all Europe, and on two occasions, in 1914 and 1917, respectively, she came within an ace of doing so. Her allies were pretty nearly worthless, of themselves. The

Edwin C. Eckel, recently Major of Engineers, United States Army, one of the most widely-known engineers and geologists in this country, identified for many years with the United States Geological Survey and afterwards representing leading business interests in the investigation and development of iron ore and cement properties, was appointed Captain of Engineers on January 23, 1917, and detailed on the staff of the American Expeditionary Force in France. While in France Mr. Eckel was in close touch with the whole war situation. After returning to America he wrote a book entitled "Coal, Iron and War: A Study in Industrialism, Past and Future," which has attracted very wide attention in Europe and in this country.

Mr. Eckel recently returned to Europe for investigation of important matters for clients, and the MANUFACTURERS RECORD has been able to arrange with him for a series of important articles on the economic and political conditions of Europe as seen from the standpoint of a trained expert who, by reason of peculiar opportunities, is enabled to get into the closest touch with the foremost business men and Government officials in the Allied countries.

Mr. Eckel will continue from time to time, as he has the opportunity, a series of articles on European conditions. We believe that no other American who has visited Europe will be better able to size up the whole situation from the economic and political standpoint.—
Editor MANUFACTURERS RECORD.

Austrians could be beaten, even by Russians or Italians, and at the most critical moments it might be necessary to send German divisions to stiffen up the Austrian resistance. Even before Von Kluck had reached the vicinity of Paris, in 1914, it was necessary to ship troops eastward to face the Russian advance. Down to the end of the war German troops had to bear the strain, and the actual net result was the loss of some 6,000,000 of men.

Now that the war is over, we can freely admit that the German army and the German military organization deserved well of their country. They fought in a bad cause; that is understood. But they fought to the last, even during the hopeless advance of 1918, with the same pluck and dash that they had shown during the fortunate days of 1914. The fact that in the end the German army was crushed under the weight of superior numbers does not alter the other fact that it was throughout a very wonderful fighting machine. And for us, as Americans, this should convey a lesson. In time of stress you may improvise an army, perhaps, but you cannot improvise the brain of that army—the General Staff organization—which alone will enable it to function smoothly. Thanks to our protected position, we may be able to do without a very large number of men in continuous military training, but we cannot do without the thinking machine, which alone can make that training effective.

But to return to our immediate subject. We may assume that Germany has lost some 20 per cent of her working population, and that it will be 10 to 20 years before this loss can be made up numerically. That is admittedly a terrific loss, but it does not necessarily mean disaster for a great industrial nation.

The Losses of the Peace—Coal and Iron.

But we must also face the fact that, thanks to the treaty of the Trianon at Versailles, Germany has suffered certain losses in territory and in resources. These, fortunately, we are in a position to value with some precision. The losses relate chiefly to iron ore and coal supplies.

As to iron ores, the losses are staggering. Before 1918, Germany owned about half the commercially usable iron ore of Europe. Today, owing to the recession of Lorraine, Germany controls probably less than one-tenth of the European iron-ore supply.

Now, the effects of the loss of Lorraine can be summarized quite readily. The tonnage lost was tremendous. It was not a high-grade ore, but it was a very cheap ore. And its loss, to my mind, puts a very definite limit on the possibility of German recuperation in the way of cheap steel exports and probably in the way of a very rapid rehabilitation of the German marine. But, on the other hand, so long as the Westphalian coal fields remain German, it will be economically possible to import high-grades ores from Norway, Sweden and Newfoundland and to reduce them with profit in the Ruhr region. Cutlery, munitions, automobile, aeroplane and gas engines and their parts may therefore still be a very profitable source of profit for the German export trade in the future.

As to coal supplies, the situation is less serious, but also less clear at the present moment. At the outbreak of the war Germany was credited with possessing over half the coal tonnage of Europe, or perhaps one-tenth of the entire coal supply of the world.

Of the 410,000,000,000 tons then credited to the German Empire, the temporary cession of the Sarre coal field accounts for less than 5 per cent, so that it cannot be considered a mortal wound. But of the remainder, some 225,000,000,000 tons was credited to Westphalia and the Rhine region and some 170,000,000,000 tons to Silesia. Today, the Silesian portion of this tonnage is still subject to a local vote, so that at the worst we may say that Germany may lose half of her original coal supply—at the best only one-twentieth. But it is worth remarking that even on the worst possible supposition, she will retain a quarter of the total coal tonnage of Europe and considerably more than is possessed by the British Isles.

From the standpoint of coal-tar products and of general manu-

facture, Germany, on the worst possible supposition, is still in a position of superiority as compared to any other country in Europe, not even excepting Great Britain. And since her workmen were before the war certainly at least equal to those of other European countries, we may fairly expect that German exports will soon become a serious factor in the trade of the world.

Questions of Finance and Commerce.

When we turn toward questions of Government finance the outlook is discouraging, for the present German Government does not seem to have the remotest idea of encouraging economy or sound finance. There has been continuous governmental extravagance since the end of the war, and, of course, under the circumstances, this implies a continuous issue of increasingly worthless paper money and bonds. Russia, even under Bolshevik rule, is today in far sounder condition than the pseudo-republic of Germany.

In the end there are only two ways possible out of this situation. The Government may frankly repudiate the present paper mark currency and the present bond issues. Or it may place a capital tax of, say, 10 per cent a year for 10 years, which would be simply another way of arriving at the same result. The two remedies suggested may seem harsh, but in truth the necessary deflation cannot be accomplished in any milder way. It is for that reason that I consider the American speculation in German currency and bonds, which has been a notorious feature of our affairs for the past two years, as being the most suicidal gamble ever attempted by our people. No possible German government can ever bring this mass of paper trash up to the old gold mark basis or to anything approaching that basis. We may as well face this cold fact now.

But even if the German Government repudiated its internal obligations, or taxes them out of existence, the German people still remain a factor in world commerce. The very poverty of the Government forces everyone to extreme exertion, and the cumulative effect is already a matter of record and of comment in commercial and financial circles.

Beginning after the armistice, exterior commerce grew rapidly in importance. At first the pressure was inward, for Germany had been deprived for four years of a large amount of necessary raw materials. This caused a large excess of imports over exports. But this trend reached its maximum in October, 1919, during which month the value of German imports was 4,000,000,000 marks in excess of the value of German exports. After that date the direction of the movement changed very markedly. Each later month showed a smaller deficit on balance, until finally, April, 1920, showed an actual credit balance for German exports of over 1,000,000,000 marks. German coal-tar colors and German iron and steel products are again reaching foreign markets at lower prices than the domestic product.

So, in the long run, we come back again to a result determined by purely material causes. It is true that the present German currency is practically worthless, and that any bonds payable in paper marks are equally so. It is probably true that the present German Government is of very temporary nature, and that it will soon be replaced by something more essentially sound and honest. But with all this, it is even more true that Germany will be under any condition the most important coal-producing country of Europe. And that being the case, there are certain necessary consequences. It is unlikely that German industry will again dominate Europe, as it did in 1914, but it is certain that a new Germany will be one of the two or three really important nations of that continent.

As for the Government of that new Germany, it may be a socialistic republic, but personally I doubt it. Unless the present Government turns over a new leaf, I would not be at all surprised to see a Hohenzollern back on the throne before next Sedan Day—not the old Emperor, but one of his sons. Everyone, in Germany and without, is rather tired of the present outfit. Whatever their faults, the Hohenzollerns at least did not gamble in the necessities of life or graft on their workmen.

Weekly Report on Coal and Coke.

The regular weekly report of the United States Geological Survey says that the total production of soft coal during Thanksgiving week declined, but the rate of production per day increased, and the output, including lignite and coal coked, is

estimated at 11,416,000 tons, being the largest figure in any Thanksgiving week of the last four years, this being the period over which weekly reports of production extend. The next largest figure was in 1917, when the output for that week was 10,565,000 tons. Preliminary reports indicate heavy production on the first two days of the week of November 29 to December 4, loading for those two days totaling 85,349 cars, a new high record for the year.

Production of anthracite coal during the week ended November 27 is estimated at 1,692,000 net tons, this decrease of 283,000 tons as compared with the preceding week being caused wholly by the Thanksgiving Day observance. Shipments during the five days of operation were at a weekly rate of 2,025,000 net tons, but comparison with the corresponding week of 1919 shows a decrease of 67,000 tons in production.

With a total of 368,000 tons the production of beehive coke during the week varied but little from the figures of the preceding week.

Favorable weather permitted lake shipments to continue in volume during the week. The Ore and Coal Exchange reports a total of 683,570 tons dumped, viz., 656,422 tons of cargo coal and 27,148 tons of vessel fuel. While this was a decrease of 28,274 tons as compared with the preceding week, it exceeded the figures for the corresponding weeks of 1919 and 1918.

Tonnage handled over the tidewater piers during the fourth week of November was 1,034,000 net tons, a decrease of 107,000 tons from the preceding week, owing mainly to decline of exports.

Work Begun on \$1,000,000 Sheet-Glass Factory at Shreveport.

Shreveport, La., December 6—[Special.]—Construction work has started on the new plant of the United States Window Glass Co. here, which when completed will represent an expenditure of nearly \$1,000,000. This company has purchased a site of about 30 acres beyond the State Fair grounds, and already tracks from the Missouri, Kansas & Texas Railway have been extended into the site to provide for switching and siding facilities.

The new plant, which will manufacture sheet glass, is controlled by one of the largest window-glass-making concerns in the East, and which has a chain of factories located throughout the various glass-producing regions of the country. Six other points were under consideration as possible locations for the new plant, but negotiations were finally completed during the latter part of September whereby the Shreveport site was purchased.

The plant buildings will be of steel, brick and concrete, and will cover an area of about 700x600 feet. The equipment will be the most improved type for sheet-glass manufacture. The tentative plans call for installation of three continuous tanks or melting furnaces, the first of which will be installed as speedily as possible. The others will be constructed as soon as the first is complete and ready for operation. The first building to be constructed will be of heavy steel construction, 300x425 feet.

Approximately 500 persons will be given employment by the new company, of which number possibly 350 will be skilled and semi-skilled persons, for the most part to be brought here from other points. The remainder will be chiefly laborers who will be secured locally.

\$653,000 Naval Experimental and Research Laboratory to Be Constructed at Bellevue, D. C.

Washington, D. C., December 6—[Special.]—The contract for the construction of a naval experimental and research laboratory at Bellevue, D. C., for the Bureau of Yards and Docks has been awarded the Boyle-Robertson Construction Co. of this city, with offices at 601 Evans Building. This new experimental station will consist of five different buildings of various sizes and types of construction, and will necessitate the expenditure of approximately \$653,000. Reinforced concrete and steel sash will be used in most of the buildings, and roofs of five-ply coal tar impregnated rag felt and slag will be placed upon them. The floors will include the use of cement, wood blocks and linoleum. A vacuum steam-heating system will be installed. The plans for the laboratory were prepared by the Bureau of Yards and Docks, and the contract was awarded during the latter part of November.

Scores Federal Reserve Board Charges

SOUTHERN BUSINESS MAN DENIES THAT PEOPLE HAVE BEEN EXTRAVAGANT AND SLACKERS IN PRODUCTION.

Fort Worth, Tex., December 1.

Editor Dallas News:

In an editorial in your issue of November 26, headlined "Unjust Criticism of the Banks," you defend the deflation policy of the Federal Reserve Board. You argue that we were headed for disaster on account of our extravagance and speculation, and that this policy merely brought on the crisis a little earlier and prevented a worse panic. I deny that people generally have been extravagant. I haven't been, and my neighbors and acquaintances haven't been. I've heard a great deal about "extravagance and speculation" from the defenders of the Reserve Board, but I haven't seen any of it except a little oil speculation that has spent its course and been paid for.

All of the apologists for the Federal Reserve Board, including the Board itself, make this same pitiful excuse. The Board makes the further claim that we have curtailed production and that we seek to "enrich ourselves by non-productive operations." This statement is clearly disproven by the fact that we now have a record crop and a surplus of production in nearly every line of industry. It is true that less work and more pay is one of the fundamental principles of organized labor, but it is not necessary to wreck the country to correct that situation. You say that "to complain of them for not having continued to indulge the country is to utter a criticism at once unjust and foolish." I am one of the "foolish" ones that insist it is no business of theirs how we work or spend our money or save; that we cannot afford to have our prosperity by their indulgence and grace, or our panics by their ordering, and that we have not set up and must not permit a Federal Bureau at Washington to regulate the prosperity of this country and to prescribe its terms, conditions and limits.

It is not necessary to have panics, as you seem to think, and every one that we have had has been the result of defective banking and currency systems. I am sure that Senator Aldrich, former Chairman of the National Monetary Commission, will be generally accepted as competent authority on this subject. I quote from his address before the Economic Club of New York on November 29, 1909, published as Senate Document No. 406, page 5.

"I believe that no one can carefully study the experience of the other great commercial nations without being convinced that disastrous results of recurring financial crises have been successfully prevented by a proper organization of capital and by the adoption of wise methods of banking and of currency.

"Of course, until human nature is changed, it will not be possible to prevent, by legislation or otherwise, periods of over-speculation, with undue inflation of values and overextension of credit. When we consider the characteristics of the American people, whose unrivaled energy and enterprise are not always confined by the limits of prudence, it is certain that we in the United States shall always have periods of speculative inflation, with the evil results which are sure to follow. Other countries, however, have been able to prevent disastrous panics and to confine the evil results of over-speculation and inflation in the main to the people directly interested; that is, to the people who have violated the fundamental laws of business and to their financial backers and supporters.

"There has been no general suspension of banking institutions and no general destruction of credit in any of the leading countries of Europe for more than a half century. There have been periods when great financial institutions of great merchants have failed and great losses have resulted, but at no time has there been any general suspension."

The trouble now is that our banking system is politically controlled and our currency is not elastic—is insufficient in volume—and has no relation to the demands of commerce, but is dependent solely on the fortuitous circumstance of our gold supply.

We now have a stock of gold amounting to about \$2,700,000,000—about \$300,000,000 less than the high-water mark. We have money in circulation amounting to about \$6,300,000,000, which is only slightly more than the estimated receipts of the railroads this year. It is less than our exports for the first six months of the year, less than the estimated Government expenses for the year, about one-third the estimated value of the crops of the year, and only 1¼ per cent of the value of our estimated national wealth.

Our circulation per capita is \$59.48, and our bank deposits per capita, as I remember them, are \$680. If this is correct, it means that the bank could pay their depositors less than 10 cents on the dollar if they had all the money of the country in their vaults; it means that if 10 per cent of the depositors of the country should withdraw their money and hide it, they would hide it all. Our payrolls, which are not paid by checks, but by currency, are 300 per cent greater than before the war. Our bank clearances, which register the volume of our commerce, are more than 200 per cent greater than before the war. These are some of the factors that determine the volume of currency we need. The increase in our currency since 1914 has only been about 80 per cent—from \$33 per capita to \$59.48.

The volume of currency that can be issued by the Federal Reserve Board measures exactly the volume of credit it can extend the banks. It is currency that it lends the banks and it cannot extend them credit beyond its power to issue currency.

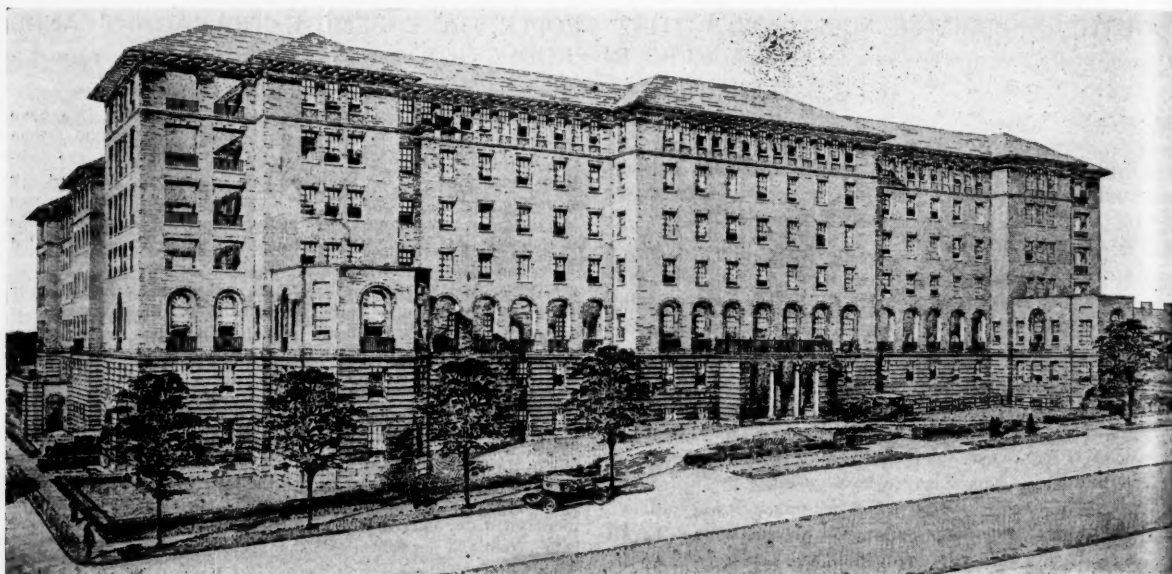
Of our \$6,300,000,000 of money only \$3,300,000,000 are Federal Reserve notes; the other \$3,000,000,000 consists principally of unredeemed national bank notes and other forms of old currency which is in process of being retired. Our permanent and only form of currency in the future will be the Federal Reserve bank note secured by a deposit of gold. We now have in circulation near the maximum of these notes with our abnormal gold supply, and they will dwindle as gold is used in settling adverse trade balances and as a reserve against bank deposits. At this time the reserve against bank deposits consumes about one-third of our supply, and this will increase with our increasing wealth and bank reserves.

It is, indeed, fortunate for the country that all of these old currencies have not been retired. It has been estimated, and I think truly, that the deflation program of the Government has decreased the values of farm products more than \$8,000,000,000 (more than all of our money) and that its ultimate cost will exceed the cost of the war. It has bankrupted the farmer and closed the factory—and the wages of labor will be the next to suffer. It has made our dollars so high that they are ineffective as a means of foreign exchange; the money of all other countries have depreciated in value as measured by them, and the cost of converting other moneys into our dollars has impaired the market for our surplus products. The imagination cannot comprehend what the situation would have been except for this \$3,000,000,000 unredeemed old currency which the Federal Reserve Board and the law seek to retire.

I agree that "criticism of the banks is unjust and foolish." But nobody criticises them—not even the Federal Reserve banks. We criticise the Federal Reserve Board, Secretary Houston, the national Administration and the law. They, and they alone, are responsible. Comptroller Williams, a member of the Federal Reserve Board, has published the statement that the Board has the power to issue \$2,000,000,000 more of currency, which would be sufficient to relieve the situation—and which it has not issued. It has the power to suspend the 40 per cent gold reserve and to issue notes based on the old Government bonds, carrying the privileges of circulation, which is has not done. It has intentionally and cold-bloodedly contracted the currency and credit for the purpose of reducing values. Their motives and purposes are inexplicable and unimportant. They have destroyed men and values that they cannot recreate, and they have made it necessary for the national Government to devise new methods of taxation to meet its enlarged and necessary expenses, which will rest heavily upon the poor as well as the rich.

GEORGE W. ARMSTRONG.

UNION MEMORIAL HOSPITAL TO BE ERECTED AT GUILFORD, BALTIMORE.



Plans have been approved by the building committee for the Union Memorial Hospital, which will occupy the entire block on 33d street, between Calvert street and Guilford avenue, in the Guilford section of Baltimore. The main entrance will be in the central building, about 30 feet back of the building line on 33d street, and will be approached by a driveway and broad steps. The entire first floor will be used for offices, library and board-room, etc. At the east end of this floor will be bedrooms and baths for internes and a suite for the resident physician. At the opposite end will be the superintendent's suite. In the central building will be dining-rooms for nurses, superintendent and doctors. There will also be two elevators in the main building.

The removal of the institution to the new site will mark the

opening of a colored hospital at the old hospital, Division street near Mosher. The old buildings have been sold for this specific reason, so that the city would have the benefit of two institutions, both badly needed.

Joseph Evans Sperry of Baltimore is the architect of the new building, which will be of a very attractive design. It will be another architectural addition to the section that now includes such structures as comprise the Johns Hopkins University, the Protestant Episcopal Cathedral, other beautiful church buildings and numerous imposing residences. Bids have not been asked, owing to the unsettled building materials market and labor conditions.

Packing Plant Nears Completion at Memphis—Large Cold-Storage Plant to Be Erected.

Memphis, Tenn., December 6—[Special.]—The new plant of the Memphis Packing Corporation will be completed within the next month. Slaughtering of cattle will begin early this month. The company plans to extend its activities by establishing a large cold-storage plant, which will have a capacity of 300 carloads of materials, in conjunction with the present plant. It will handle large quantities of Northern apples, potatoes, dairy products, fruits and produce.

The need of a packing-house in this locality is strikingly emphasized in the figures issued by the United States Department of Agriculture, showing that there were left on hand on January 1, 1918, in Mississippi, Tennessee, Arkansas and Alabama approximately 2,500,000 beef cattle, 7,328,000 hogs and nearly a million sheep. The loss from shrinkage in shipping this livestock to Northern markets represents a big item, and through the use of the local plant a large percentage of this loss will be eliminated.

The packing corporation was organized in this city about a year ago with a capitalization of \$2,000,000.

Will Build Small Hydro-Electric Plant.

Pineville, Mo., December 4—[Special.]—The Ozark Electric & Manufacturing Co., organized recently, plans the construction of a small hydro-electric plant near here. It will consist of two 100-horse-power water-wheels with direct-connected vertical-type generators. The generator building will be of reinforced concrete construction. The officers of the new company are: C. R. Resler, president; P. L. Carnel, vice-president; Al. York, secretary; Jasper Strong, treasurer.

Timely Presentation of a Lincoln Sentiment.

A handsomely-framed likeness of Abraham Lincoln, together with a notable utterance by the "Great Emancipator," has been received by the MANUFACTURERS RECORD from the Columbia Steel & Shafting Co., Edward L. Parker, president, Pittsburgh, Pa. As with all great truths, which have eternal life, the sentiment reproduced, although written more than half a century ago, is as applicable to present conditions as if uttered yesterday. It follows:

"Capital has its rights, which are as worthy of protection as any other rights. Nor is it denied that there is and probably will be a relation between labor and capital producing mutual benefits.

"The strongest bond of human sympathy outside of the family relation should be the one uniting all working people of all nations and tongues and kindreds. Nor should this lead to a war upon property or the owners of property. Property is the fruit of labor; property is desirable; is a positive good in the world. That some should be rich shows that others may become rich, and hence is just encouragement to industry and enterprise.

"Let not him who is houseless pull down the house of another, but let him work diligently and build one for himself, thus by example assuring that his own shall be safe from violence when built."

Large Steel Plant Nearing Completion.

Weirton, W. Va., December 6—[Special.]—The large new plant of the Weirton Steel Co. will shortly be completed and placed in operation. Already four open-hearth furnaces are now complete, and by the first week in January it is expected that three additional furnaces will be ready for use.

The blooming mill, composed of 21-inch and 18-inch continuous mills, rolled the first steel on Saturday, November 27.

The Development of Georgia Mineral Resources Is Dependent Upon Making Known Its Commercial Advantages to Financial Interests

[What Dr. Maynard so strikingly presents in the following article about Georgia will apply to every State in the South.—Editor Manufacturers Record.]

By T. POOLE MAYNARD, Ph.D.

The most important factor necessary to a greater development of Georgia's mineral resources is an educational campaign which should be carried on among our financial interests. This development can follow, or must follow, the laws of evolution as in the development of diversified agriculture and manufacturing in the South, but it can be established by an intensive educational campaign. The bankers realize that in order to sell securities they must make known the value of these securities to the public. It is, I believe, true that the financial interests in Georgia know less about Georgia's potential mineral resources than does any other class of citizens in the State.

If Georgia had relied upon the backing of her financial interests she would not today be the first State in the production of barytes. This industry has been developed with money from New Jersey, New York, Delaware, Missouri and Kentucky, together with a very small amount of capital recruited in this State.

Georgia would not be the first and leading State in the production of ocher, which has been developed by Pennsylvania, New York and other interests. There would not have been a payroll of \$25,000 weekly during the last few years in the Cartersville district of Georgia were it not for the fact that capital from all sections of the United States had confidence in the possibilities of these undeveloped resources.

Outside Versus Home Confidence.

There would not be a cement mill in Georgia, not a lime plant, and Georgia would not be the second State in the production of marble, without the aid of Eastern and Middle Western capital.

The wonderful development of Georgia marble has been due to the untiring labors and endeavors of a Georgian, but not through the aid of any of Georgia's financial interests. It was necessary to go to Baltimore for the money for the consolidation of the Georgia Marble Co., and now the Georgia bankers are falling in line and appreciate to some extent what this industry means to the State.

Georgia would not be the second State in the production of aluminum ores if it had depended on Georgia capital. New York, Pittsburgh and St. Louis money has brought this development about.

Georgia would not be the leading State in the production of china clay and kaolins. It was New York, Philadelphia and Washington money, with a small amount from Georgia, and the very great activity by the Central of Georgia Railroad that are responsible for this industry.

Georgians have not participated in the production of barytes taken out by one company in the last few years in one mine in North Georgia; this barytes having a value at the mines of a million dollars, representing a value of approximately \$10,000,000 as a refined product. These opportunities were realized by Eastern interests on an investment of not more than \$50,000. The vision was that of an outsider, and not a Georgia banker.

The Reasons Why.

Why have not the bankers backed these enterprises in the State?

They are not wholly at fault.

First—Because we are just one or two generations from the race which occupied the position of entrepreneur of the plantation. During Civil War days Georgia was essentially an agricultural State. Men were not educated in science, but almost exclusively in agriculture.

Second—We have not been a manufacturing State, and without a market for our undeveloped minerals we have not been able to compete with foreign countries and lay down our raw materials at the manufacturing plant at the Eastern seaboard.

Third—Our politicians have been advocates of free trade, as regards raw material. The manufacturing industries of the East have had protection from foreign competition and also the double advantage of free trade on imported minerals, so that cheap ocean transportation rates, as against relatively high, long-

haul freight rates, have operated against the development of our mineral resources. These factors have been materially altered since the World War, and a blessing has been wrought in the South, which will make possible competition of our raw materials with those which are imported in spite of our political faith.

Fourth—Mining operations which have been fostered for the most part by our own people have not been presented to our bankers on the same business basis as manufacturing investments, and we should not blame the banks if they are unwilling to financially support any mining operation unless it is presented in a business way.

To Create Local Interest.

How are we going to establish the same confidence among our own people which outsiders already have in our mineral potentialities?

First—By educational, authoritative information, such as can be sponsored by such an organization as the Georgia Association.

Second—Our own chemists, mining engineers and geologists should make known the nature and character of the work which they are doing.

Third—The establishment of the confidence of our own financial interests in authoritative, scientific information.

Fourth—A realization that the development of chemical industries is as essential to our healthy advancement as is agriculture and manufacturing development.

Fifth—The promotion of mining corporations should be carried out on the same sound business basis as that upon which manufacturing plants are financed.

Sixth—The basis of organization should not only be controlled by the State in regard to the capital invested, but a mining corporation should not be allowed to organize until detailed reports by authoritative engineers prove to the satisfaction of the State that the raw materials are in sufficient quantity and are of proper quality to justify legitimate promotion.

Seventh—The development of our mineral resources is dependent upon manufacturing development, for in the plant is the market. Manufacturing development is dependent upon the association of raw materials as well as labor, railroad facilities, etc.

Therefore, a knowledge of our mineral resources will stimulate manufacturing development, and the most desirable development is that of equal progress of both our mining and manufacturing interests.

Extensive Building Activities at St. Petersburg.

St. Petersburg, Fla., December 6—[Special.]—Permits for new buildings to cost over \$326,000 were issued here during the month of November, surpassing the record of May, when permits were issued representing improvements costing about \$303,000. Seventy-three new residences were included in the month's permits, making a total of 433 for the past year. Outside the city limits construction of at least 200 houses has been started during the year. Ordinarily November is one of the poorest months for building progress in the year, and the general building activity is attracting much attention. During the 11 months just past permits have been issued for new construction and repairs amounting to \$2,552,000.

Mobile to Get \$400,000 Federal Coal Pier.

Mobile, Ala., December 6—[Special.]—The Federal coal terminal, costing \$400,000, is assured for Mobile, now that a fund of \$37,500 has been definitely pledged by local business men and citizens of Birmingham to pay for the necessary site on Blakely's Island. Contract for driving test piles and setting up test borings has been awarded by the United States Rivers and Harbors Engineer to J. A. Gilbert of Mobile.

IMPORTANCE OF REFORESTATION AND CONSERVATION OF OIL.

Practical Suggestions by Mechanical Engineer who Has Had Long Experience with Fuel Oils.

Windsor, N. C., November 21.

Editor Manufacturers Record:

I have read with great interest the article in the last issue of your paper relative to work of reforestation about to be undertaken by the Great Southern Lumber Co. in Louisiana. Louisiana is my native State, and it has always seemed to me that the policy of the big lumber companies was very bad. A few months ago I had occasion to travel through the cut-over pine lands in the western part of that State after an absence of several years from that section, and it struck me that the scene of desolation was something awful. For miles nothing was visible in the way of trees but blackened stumps, where the forests of long-leaf yellow pine had been. Everything in the way of a tree had been cut down, the large ones for lumber and the small ones for fence posts. There seemed to be no desire to ever let another tree grow there again, and the only use that they seemed to consider the land fit for was for sheep pasturage.

Since coming to this part of North Carolina I have been impressed more by the diametrically opposite policy pursued by the owners of timber lands than by any one thing. I notice around here that they don't try to cut the small trees down, but only use those of a certain size, having an eye for the future of the lumber industry. I am glad to see that Louisiana has at last decided to do what should have been started years ago on the land unfit for farming.

I have seen a great many articles recently about the diminishing supply of fuel oil and the oil supply of the world generally. It seems to be generally conceded that there is not enough oil in sight to last the world many years more, but there seems to be no attempt being made to prevent the waste of what is in sight. Of course, there are attempts being made to prevent oil producers from wasting it at the wells and elsewhere, but there is no attempt being made to prevent the public from using it unwisely, and there are millions of barrels being wasted that could be easily saved.

My first experience with the use of oil for fuel was shortly after the discovery of oil at Beaumont, Tex., and I have personally wasted several thousand barrels and the money they cost by not using it economically. I was at that time engaged in running an electric-light and water-works plant, using wood for fuel. We found that fuel oil would cost us less money, so we started to burning the fuel oil under the boilers. After about 10 or 12 years oil went so high that it was hard to keep on burning it and operate economically, so I investigated the Diesel engines, and found that they would run on very much less fuel, but was unable to get the city I was working for to put in the necessary machinery. In 1912, however, they decided to adopt my policy, and employed me to put in a new plant for them, using crude-oil engines. Now, to illustrate my point, this plant was running only at night, and was using from 40 to 50 barrels of Jennings crude a night. The new plant when installed used only 5 barrels in a 24-hour run, and this average was maintained over a period of several years. By installing this oil-engine plant in the place of the steam plant I have personally saved the world over 160,000 barrels of oil that would have been burned by the steam plant.

In 1910 I installed a Diesel engine plant in the town of Thibodaux, La., which has saved the world oil in the same proportion. There is no denying the fact that the crude-oil engines will operate on from one-eighth to one-sixteenth of the fuel oil that a steam plant will require. Of course, this would not be true of a large steam plant, which could be made more economical, but it is true for most plants up to several hundred horse-power.

Now, the point I make is this: We know that in a few years we will have no oil or not enough to supply our needs, but what are we going to do about it? Are we going to keep on as we are doing now and allow the law of supply and demand to regulate the price, and in regulating the price allow the consumer to decide whether it will pay him to burn the oil up or to use some other kind of fuel under his boilers? If we allow the use of oil under

boilers, are we going to let him use the crude oil, which contains the gasoline, kerosene and lubricating oils, or are we going to make him use residuum, which makes good fuel? Should we not make some attempt to get power consumers to use engines which run on the lower grades of fuel oils and conserve the gasoline and kerosene for the machines which have to have high-grade fuel? Should we not make some attempt to make our central power stations economical enough and large enough to serve the power and electric heating needs of the community which they serve, so as to eliminate all small gasoline engines, as far as possible, and all oil stoves?

My personal experience has covered a number of years and most makes of crude oil and steam engines. A Diesel engine will burn the lowest grades of oil successfully if designed so that the pumps can handle the oil. The low-pressure crude-oil engines of the hot-ball or hot-plate type will run very satisfactorily on low-grade fuels if they are kept liquid enough for the fuel pumps to handle it. I have run Mietz & Weiss oil engines on 27 gravity residuum over a period of 18 months. During this time the weather was so cold that the paraffine base oil I was using would freeze solid and have to be heated to keep it liquid, but the results, as far as fuel economy was concerned, were as good as they were when using Jennings (La.) crude. In buying my fuel I never considered anything but the price, and would buy any of the grades of crude or use Caddo residuum if not below 27 gravity. I even tried 14 gravity Mexican residuum, but couldn't get good results because the pumps would not handle it, but I believe that a slight change in the design of the pumps would enable a man to use any fuel that was liquid. Rudolph Diesel's original idea was to design an engine that would run on powdered coal. If we are going to use the fuel oil for power purposes, let us use a Diesel or a low-pressure hot-plate engine, or else insist that the man who uses fuel oil under a boiler has a plant that is so designed that it will give as economical results as he would get with these types of engines. If he uses it under a boiler, he should under no circumstances be permitted to use anything but the lowest grade of residuums.

Another thing we should try to prevent is the use of gasoline in engines which are designed for kerosene or distillate. I have seen a number of instances lately where large engines were running every day on gasoline which should be run on kerosene. They would do as well, would cost less to operate and would save the gasoline for machines which must have it or stop.

If we are going to design our central stations so as to use oil for fuel, let us use oil engines that are economical in both fuel and lubricating oils. Some oil engines are very wasteful in the use of lubricating oils, while some are not. Let us design our plants large enough to serve the community fully, so as to cut out all other engines in the community, as far as possible, unless the other plant is of such a nature that it can show the same economy of operation as the central station. It is a very common occurrence to see a plant installed with simple slide-valve steam engines running non-condensing and with no attempt at special economy of operation in order to save on the first cost. Such plants are criminal wasters of the world's fuel supply, and have no right to exist.

It is a lamentable fact that most municipalities, when they install a power plant, do not consider anything but the lighting and power requirements of the community. The use of all kinds of electric utensils, electric irons, washing machines, ironing machines, vacuum cleaners, etc., are entirely ignored, both as to their power requirements and the rates of charges necessary for them to be used at all. There is a very large business in any community that can be had if the use of these are encouraged by proper rates, but most of the small plants cannot handle the business, either because of insufficient power or inefficient design. Did you ever stop to consider how much kerosene and gasoline would be saved if the central stations would give rates that would put most of the oil stoves and small gasoline engines out of business? I am now installing a plant which will probably put something like 75 small gasoline engines out of business.

I suppose that in my lifetime I have wasted as much fuel oil by inefficient use as anybody could with my opportunities. I have used gasoline when I could just as easily have used kerosene. I have installed plants too small and with no efficiency whatever, but I have seen the error of my ways, and in the future intend to

use my 30 years of experience to help the world make its fuel and lubricating supply last longer, and if one person who should happen to read this article should decide to do the same thing, I will feel that my time and the paper I took to write this on has not been wasted.

A. C. JONES,

Superintendent J. B. McCrary Engineering Corporation.

Enormous Gas Supply Near Fort Smith, Ark.

Fort Smith, Ark., November 27—[Special.]—According to a report just issued by the State Gas Inspector, the wells in Crawford county have a daily producing capacity of 98,158,000 cubic feet of gas. Over 100 industrial plants and 7000 other consumers are served. Five additional wells are being sunk, which will add another 25,000,000 cubic feet before the close of the year, and a derrick has been erected for a sixth. Under the State reserve regulations the daily permitted consumption is between 40,000,000 and 50,000,000 cubic feet, and the daily consumption is about 18,000,000. Forty-three wells have been connected to the pipe line and 10 wells held in reserve, with a tested capacity of over 80,000,000 cubic feet per day. The old Kibler field has a daily capacity of 38,000,000 cubic feet, and the Williams fields 160,000,000 feet capacity.

As a result of the vast gas resources, 10 per cent of the daily flow of gas in the field will take care of the present needs of Fort Smith and Van Buren.

Oil Found Near Mexia, Tex.

Austin, Tex., December 2—[Special.]—No recent event has aroused more interest among Texas oil men, investors and speculators generally than the bringing in a few days ago of a wildcat well two miles west of Mexia, south of Dallas about 40 miles. This well is as yet an uncertain quantity, as it is not entirely finished. It has been flowing by heads for several days, and the estimates of its capacity range all the way from 2000 to 5000 barrels a day. The well belongs to the Humphries Petroleum Co. An extraordinary demand for leases followed the strike. Thousands of excited men rushed to the scene in automobiles and by trains. Oil rights to land situated close to the well sold for as high as \$1000 an acre. Several of the older and well-established companies succeeded in getting good leases in the prospective new field.

Oil Refinery for Louisiana Town.

The Delart Refining Co. of Lafayette and Anse La Butte, La., has plans by J. A. Coleman for a refinery costing \$38,500, the daily running capacity to be from 100 to 150 barrels of crude oil. The buildings include a frame office laboratory, a two-story receiving-house, a warehouse and a frame pump-house. Pipe ranging from $\frac{1}{8}$ inch to 8 inches will convey the oil, the longest line being 400 feet of 3-inch pipe and extending to the field loading rack. The estimated cost of the pipe lines is \$5000. Contracts for furnishing the machinery have been awarded to the Tulsa Iron & Boiler Works of Oklahoma City, and William P. Copping of New Orleans, and for piping to F. W. Heitmann Company and Peden Iron & Steel Co., both of Houston, Tex. John A. Coleman of Lafayette is the superintendent. The capital of the Delart Refining Co. has recently been increased from \$50,000 to \$150,000.

New Well in Western Kentucky Field.

Bowling Green, Ky., December 4—[Special.]—A 400-barrel well, one of the best struck in Kentucky in several months, has just been brought in on the Waller lease by the Jewell & North Texas Company. This well extends the old territory of the Warren county field, in which eight rigs are now drilling. The well is about 1000 feet deep and reaches the Berea sand, from which comes some of the best wells yet produced in Kentucky. It is said that pipe lines will early be extended into the new oil field. Many new leases are being taken in that section, all of which indicates activity in drilling operations during the winter months.

Hewitt Gasoline Plant Nears Completion.

Tulsa, Okla., December 6—[Special.]—The first unit of the new casinghead gasoline plant being erected in the Hewitt field by the Wolverine Oil Co. is expected to be ready for operation early in February. This new plant is of the four-unit compression type, and will cost approximately \$300,000.

It will be equipped with four gas engines of approximately 100 horse-power each, and four duplex compressors, besides one 80-horse-power engine and a small duplex compressor. Good progress is being made upon the construction of tanks, pipe lines and similar equipment.

Notes on Oil-Drilling Activities in Southwest.

New oil sands have been encountered in two wells in the Kemp-Munger-Allen field in Wichita county, Texas, which has stimulated drilling operations, particularly by companies heretofore of the opinion that they had exhausted their particular part of the original pool.

While there is still much drilling activity, based on the theory that oil-producing territory follows the Red River, the bringing in of the discovery well of the Sigler Oil Co. a few miles south of Vernon, Tex., several months ago has not been followed by other successful completions.

The Paragon Oil Co. during the last seven months transported from the Northwest pool, near Burkburnett, Tex., to its parent refinery at Toledo, O., by pipe line 1,100,000 barrels of crude petroleum.

The Humble Pipe Line Co. has reduced the price of Gulf coast heavy crude oil from \$3 a barrel to \$2.50, steel storage, and \$2 earthen storage. Similar cuts by all of the other larger operating companies are predicted. Lack of storage, also competition of Mexican heavy crude, are factors in the reduction.

The principal producing fields of the Gulf Coast region, including West Columbia, Goose Creek and Hull, have showed a falling off in the output during the last several days.

According to a report just issued by the State Railroad Commission, the oil-pipe lines operating in Texas carried 8,184,527 barrels of oil during the month of October. The West Columbia field led, with a total of 1,033,621 barrels, and the Breckenridge came second, with a total of 1,501,783 barrels.

Texas Farm Bureau Plans Warehouses for Wool.

El Paso, Tex., December 6—[Special.]—Plans are under way for establishment of warehouses to handle the great farm bureau wool pools. It is probable that they will be located at either Galveston or Houston. Members of the Texas Farm Bureau are now at work studying the situation with a view to deciding the most economical point for the location of the warehouses. In the absence of woolen mills, it is necessary to obtain the most economical storage and transportation facilities for delivery to Eastern markets.

It is planned to build warehouses of 5,000,000 pounds capacity and to provide room for grading of the product before selling. It will then be possible to sell "lamb's wool" and get a premium for it instead of throwing it in with other wool. Black wool can also be kept separately, and may be sold at higher prices than white wool where available for use in its natural state without the use of dyes.

Work on Bank and Office Building Progressing Rapidly.

Monroe, La., December 4—[Special.]—Work is progressing rapidly upon the construction of the 10-story bank and office building for the Ouachita National Bank here. Concrete pile foundations have been completed and reinforced concrete work on the superstructure is progressing. It is planned to complete the concrete and steel framework by April, 1921, and to have the structure ready for occupancy by August. The furniture, lighting and interior decorations will make it one of the most modern buildings of its kind in the section.

The Underwood Contracting Co. of New Orleans has the general construction contract, and all purchases of materials have been made with the exception of laths and plaster, bronze work and the interior equipment.

\$4,000,000 BY-PRODUCT PLANT NOW IN FULL OPERATION.

Domestic Coke Corporation Completes Three Plants Started Two Years Ago.

Fairmont, W. Va., December 4—[Special.]—The big \$4,000,000 by-product plant of the Domestic Coke Corporation is today in full operation for the first time. Three plants were started more than two years ago, and due to delays incident to the war were not fully completed until recently. The first of the 60 ovens of the large plant were charged yesterday, and by 9 o'clock this morning all were in operation.

The new plant employs 225 men, who are arranged in two shifts of 11 and 13 hours each. The present stock of coal on hand will probably be sufficient to run the plant ten days, the quantity approximating 12,000 to 15,000 tons.

The first coke from the new plant will be shipped from Fairmont to Eastern steel plants. At present the plant is using 650 tons of coal a day, but when it is running full blast it will consume 1100 tons a day. For the present the Domestic Coke Corporation will only produce 24-hour coke, but when sufficient coal is on hand to assure steady operation, the coke will be produced in from 14 to 15 hours.

Previous operations of the company were fully outlined in the MANUFACTURERS RECORD. Charles V. Critchfield is vice-president of the Domestic Coke Corporation. The general contractor on the plant was the Koppers Company of Pittsburgh, Pa.

Rapid Restoration of Industries in War-Devastated Regions of France.

New York, December 6—[Special.]—Rapid restoration of French industry in the war-devastated regions has been announced here in advices received from the Ministry of the Liberated Regions. More than two and a half times as many plants are in operation as were running at this time last year, and 76 per cent of all plants in these regions are again in operation.

The handicaps of scarcity of labor, the high cost of materials and the task of restoration necessary before productive activity could be resumed have not kept these plants from giving employment to nearly half as many men as before the war.

The importance of the progress of the work in restoration may be realized from the fact that the regions affected produced 63 per cent of France's total steel output, 81 per cent of her textiles, 92 per cent of her iron, and more than 50 per cent of her fuel.

The greatest revival of industry has taken place in the Lille region, the largest manufacturing center of France, where more than 87 per cent of the factories affected by the war have resumed production. The recovery in the manufacture of textiles, especially woolen, cotton and linen fabrics, has been especially noteworthy.

Metal production is rapidly increasing. Of 50 blast furnaces destroyed, 37 have been restored; of 844 metal-working plants, 736 have been put into operation, with 50 per cent of their normal force of employees, and copper, bronze, iron and nut and bolt factories are all being restored rapidly.

Large hydro-electric plants have been installed, and France plans to produce her own nitrates in future. Coal, stone and pottery and chemical works are included in the industries rapidly approaching pre-war production.

Will Erect Large Paper Can and Tube Factory.

The St. Louis Paper Can & Tube Co., St. Louis, Mo., having sold their plant at 4400 Union Boulevard, will erect a new plant at Maplewood, St. Louis county, just outside the city limits. Relative to their plans for the new factory, the company writes the MANUFACTURERS RECORD: "We are going to have the largest plant under one roof and on one floor in the country, as there will be over 94,000 square feet steel and glass construction. Of course, there are factories that are larger, but no plant of our line of fabrication will be as large, and we will be in operation by March."

Here and There About the South.

Reports from the Florida West Coast state that in one day recently fishermen at St. Andrews Bay brought in a harvest of 200,000 pounds. The fishing industry is becoming increasingly important in Florida, fishing-houses being established all along both coasts.

As an indication of the metropolitan character which the city of Wichita Falls, Tex., has come to assume, it may be noted that the city plan committee of the Chamber of Commerce has engaged a landscape engineer from St. Louis, Mo., to outline plans for the future development of the city. It is proposed, among other things, to limit the height of structures in business sections to eight stories, to straighten the streets and to construct an elaborate system of boulevards.

Rivalry exists among the leading cities of North Carolina in their efforts to secure the great hospital which is to be built by the Baptists in some town of the State, probably one of the centrally located cities. The Baptist State Convention has already appropriated \$100,000 to begin construction of the hospital, this being only the preliminary gift. It is expected that the town which secures the institution will contribute to the plan \$100,000 or more.

It is computed by the United States Forestry Service that the city of Asheville, N. C., has 32,000 shade trees, or about 400 trees for each mile of streets in the city. If a money value may be placed on shade trees, the forestry office would estimate the maples and oaks of Asheville as worth \$800,000.

Clarksville, Tenn., has a municipal stone quarry of considerable size which furnishes a fine quality of stone for construction purposes and concrete work. It controls the stone market of Clarksville, and could, if required, be put on a commercial basis and furnish considerable revenue to the city.

The new method of extracting phosphoric acid from phosphate rock which has been developed at Arlington, Va., by the United States Bureau of Soils is attracting considerable attention in Florida because of the large deposits of phosphate rock the State possesses. Its fertilizer factories consume phosphoric acid in large quantities. There is talk of erecting a reduction plant in one of the larger cities of the State.

A number of cities in South Carolina are interested in the organization of the Piedmont Section Chamber of Commerce of South Carolina. Five cities of the Piedmont section were represented at the organization meeting at Greenville recently, and other cities are expected to come in later.

At a distance of about 11 miles from Bowling Green, Ky., asphalt is being dug from the hills in a manner similar to the mining of coal. It possesses the advantage over ordinary asphalt of being ready mixed, and it can be laid cold by unskilled workmen. This reduces the cost and avoids the physical difficulty of laying the hot-mixed asphalt. The quantity of natural paving material in the asphalt beds has not been estimated. Great difficulty has been experienced in getting the asphalt to market.

Approximately \$5,000,000 a year is the amount of the business done by the city government of Kansas City, Mo. If the schools are included and the business of the county, the total would reach nearly \$10,000,000 a year.

One of the largest producing sections for tomatoes in the country is East Texas. Hundreds of carloads are shipped annually from the loading centers. The growers in this section are considerably encouraged by the efforts of the Texas Chamber of Commerce to organize marketing associations.

The city of Louisville, Ky., has under consideration a plan for the purchase and operation of a coal mine for the distribution of coal to city institutions.

Cotton shipments are now being made through the new terminals at the municipal piers, army supply base, Norfolk, Va. It is expected that these piers will ultimately double the port's storage capacity.

Economies Effected by Use of Superheated Steam

HIGH FUEL COSTS MAKING NECESSARY A REDUCTION IN COAL CONSUMPTION WHEREVER POSSIBLE AND CALLING FOR GREATER EFFICIENCY IN STEAM PLANTS.

With the prevailing high price of fuel and the growing difficulty of obtaining it promptly at any price, due to transportation and labor conditions, power-plant operators are critically studying every possible economy of operation. The annual coal bill paid by the operator of a power plant has grown so fast since 1915 that it pains him to think about it, and the desire to reduce it is strong, whether the cost of power is 5 per cent of the price he gets for his finished product or 20 per cent. His customers insist on a reduction in price before they buy freely, and so he is looking for every possible opportunity to save a dollar in order to meet the situation. The same holds true of municipally-owned power plants, for public officials realize that taxpayers are now demanding full value for what they pay. When it is considered that a department which must pump water spends about two-fifths of its annual pumping station expenses for fuel, the reason that the water-works superintendent is studying more economical methods of using fuel is apparent.

There is another and very important reason why fuel consumption is now receiving especial consideration from power-plant owners. The demand for power in many industrial plants can barely be met with present equipment. Many of the owners are doubtful whether future business will warrant the installation of new boilers and engines. The margin between power demand and present power plant capacity is so small, however, that new additions to power plant equipment may now be made or a greater output obtained from present installations.

The purpose of this article is to explain in a non-technical manner one method of reducing fuel consumption and increasing the capacity of many existing steam-power plants, namely, that of superheating steam.

The use of superheated steam saves fuel by greatly reducing the waste of the energy possessed by the steam. This energy is given to it while the temperature of the feed water is being raised to the temperature at which steam is given off, and when the water is changed into steam. Nine-tenths of the fuel beneath a boiler is used to change the water into steam and one-tenth to raise its pressure.

As this steam is delivered through the pipes to the engines and auxiliaries part of it condenses to water, and most of its heat is lost, even though the water of condensation is returned to the boilers. The amount of fuel used to furnish this steam which is condensed is so large in the average plant that it should be saved if at all possible to do so. By covering a bare steam pipe with standard heat-insulating materials from 65 to 85 per cent of the former condensation can be prevented, but there will always be radiation from the pipes, and the engineering problem is to determine the point at which it ceases to be economical to check radiation and use other means of preventing condensation.

As steam is generated above the surface of the water it is called saturated, so-called because if the pressure is lowered some of it will at once be converted again to water. If this saturated steam is heated away from the water, it becomes superheated steam, and its pressure can fall to that of saturated steam before there is a tendency to condense, and herein is the main advantage in the use of superheated steam.

The amount of coal required to superheat steam to any working temperature is very much less than the amount of coal required to convert water into saturated steam of the same pressure. Consequently, if the large loss due to condensation can be saved by superheating the steam by burning a small additional amount of coal for the purpose, this is an economical procedure.

Cylinder condensation is the principle cause of low engine efficiency. The initial condensation is seldom less than 20 to 30 per cent of the total weight of steam entering the cylinder. For a given amount of superheat the economies may be as high as 40 per cent with slow running full stroke or throttling engines, 20 per cent with simple non-condensing engines, 10 per cent with compound Corliss engines, 6 per cent with triple-expansion engines, as compared with the same engines using saturated steam.

It is, however, advisable to base results on heat consumed per

horse-power rather than on the steam consumption, for it must be borne in mind that superheating requires a certain amount of additional fuel, hence the plant economy is not in exact proportion to the increased economy of the engine alone. In the average power plant, where 100-degree superheat is practicable, about 6 per cent more coal must be burned to furnish superheated steam than to furnish the same amount of saturated steam at the same pressure. But because less superheated steam is needed, the 6 per cent increase in coal consumption is based on a smaller amount of coal than is burned when saturated steam is used. In the case of the pumping station at St. Louis, composed of triple-expansion engines of 15,000,000 to 20,000,000 gallons capacity, pumping against a pressure of 85 to 112 pounds, there was shown a saving of 12.1 per cent in steam consumption when it was superheated 100 degrees F. Some of the pumps tested were 25 years old and showed nearly 12 per cent greater efficiency than the duty trial results when the pumps were originally tested upon installation. The saving in coal amounted to 7.5 per cent; therefore, the amount of additional coal required for superheating was 4.6 per cent. By the use of superheated steam the saving in coal consumption in the Chain of Rock Station, St. Louis, has been sufficient to pay for the superheaters in about three and one-half years. Elsewhere it has proved to be one of the greatest factors in increasing the efficiency in the engine-room.

The persistence of belief that lubrication is difficult with superheated steam has retarded development of superheating. The whole arc of engine lubrication has changed as a result of the great development of mineral lubricants in recent years, and now it is no more difficult to lubricate an engine running with superheated steam than with saturated steam.

Objection has been raised to use of superheated steam because there may be difficulty with the valves of engines, due to slightly increased expansion, than when saturated steam is used. But much similar trouble is also reported with valves of engines using only saturated steam. It may, therefore, become necessary to scrape the seats and valves when superheated steam is used.

It is desirable to use valves with steel bodies rather than cast iron, since experience shows that the latter sometimes deteriorate or become broken when superheated steam is used. On the other hand, cast-iron valves need not be discarded when the total temperature does not exceed 450 degrees, this temperature being permitted with cast-iron valves by the Boiler Code of the American Society of Mechanical Engineers. Similarly the piping and fittings installed for use with saturated steam will be subjected to greater expansion if superheated steam is used, and it is generally held that the proper provision for expansion strains is one of the most important details to receive attention in introducing superheat in an existing power plant.

The greatest percentage of gain resulting from the use of superheated steam is usually in connection with auxiliaries, which are necessarily less economical than the main units. Marked economy can also be obtained by using superheating with very large engines, as has already been outlined above, but the saving depends largely upon the equipment of the plant. If it is of an uneconomical type and in poor condition, the results with use of superheated steam will not be very gratifying, but by bettering conditions of equipment and using superheated steam a really astonishing saving in coal consumption may be effected.

Superheated steam is almost invariably used in operation of turbines. In turbines the temperature difference between the entering steam and the turbine walls is lower, due to the fact that the steam has a continuous course through the turbine, whereas in the engine each end of the cylinder is alternately in contact with high pressure and then low pressure steam, resulting in an average lower temperature of the cylinder walls. The friction or "windage" in a steam turbine has a greater bearing on economy than initial condensation. The density of superheated steam is much less than that of saturated steam, and hence there is a great reduction in friction where superheated steam is used.

When properly designed and installed, superheaters should have

the same life as the boiler. The high economies possible by the use of superheated steam warrant a careful study of every case where it is proposed to use it. Experience has shown that the modern superheater, which usually consist of bent tubes of U-shape, one leg of the tube entering the inlet header or manifold and the other leg entering the outlet head, must meet certain conditions which may be summed up as follows: They must be located in the direct path of the gases without offering undue amount of frictional resistance to the passage of the gases; the surface should offer the least opportunity for the adhesion of soot or rust. All parts should be readily accessible for inspection and repair, and the design should be such as to allow freedom of expansion without affecting the boiler proper or the setting; provision should be made against overheating when no steam is flowing through the superheater units; it should give maximum superheating efficiency; it should be designed with careful consideration of steam velocities and steam areas to provide a minimum drop in pressure; it should give uniform superheating and be designed for ease of regulation; there should be minimum possibility for leaks; its design should be such that it can be adapted to meet the individual plant conditions.

Educational Progress in Mississippi Extensive.

Jackson, Miss., December 6—[Special.]—Mississippi is closing a decade of educational progress, the beginning of which found it one of the most backward States in the Union, and the close of which finds it in the forefront of Southern Commonwealths, especially in the matter of rural education.

Today there are 470 consolidated schools, with 2049 teachers and 60,000 pupils. Nearly all the schools have homes for teachers, along with ample space for playgrounds and small farms. Their work is carefully graded and of a standard approaching that done in city schools. Twelve are vocational schools. The buildings are comfortable, many of them handsome, and well equipped. Children are transported to and from school in covered wagons or automobile trucks, as most of the roads in the State are improved now.

Fifty agricultural high schools are in operation, and others are contemplated. They are well equipped "people's colleges," situated in rural communities and teaching agriculture and home-making to boarding students as well as to day students. There are 7000 pupils in these high schools at present.

In 1910 the State Department of Education numbered a superintendent, a secretary and a stenographer; now it has 22 members, and there is work for many more.

Not only has the State's educational progress been evidenced by the building up of a common and high-school system in the country districts, but also in the increased attendance at colleges. Every one in the State is crowded this year, and the State recently issued \$3,000,000 in bonds for college dormitories and other buildings.

The Legislature of 1910 passed two laws that have exerted a tremendous influence upon educational progress, and which have made it possible for the State to establish a rural educational system well calculated to keep its agricultural class contented with progressive farm life and to stave off, in a measure at least, the rush to the cities. One of these provided counties with the power of establishing special levies for the consolidation of rural common schools; the other, levies for the establishment of agricultural high schools. In 1910 the system of rural education in the State consisted of scores of one-room, ungraded schools, in charge of underpaid teachers, with none but the most elemental equipment, and offering children little more than an opportunity to learn to read and write.

Pushing Work on Carbon Black Plants.

Monroe, La., December 6—[Special.]—The first carbon black unit of the Sterling Carbon Co. has been completed at Sterlington, on the D. Y. Smith farm. The company has expended several hundred thousand dollars thus far on the erection of carbon black plants and is planning further extensive developments. The Southern Carbon Co. at Swartz is pushing operations on the construction of eight plants there. They have already six factories at Fairbanks, five at Spyker and three at Perryville.

\$11,500,000 RECONSTRUCTION PLAN FOR HOPKINS HOSPITAL.

Huge Sum to Be Raised for Rebuilding Entire Group and Adding Important New Structures.

Plans have been practically completed by the board of trustees and Dr. Winford H. Smith, superintendent, of the Johns Hopkins Hospital, Baltimore, for the reconstruction of the buildings comprising the hospital group, which, together with new improvements, will result in an expenditure of more than \$11,000,000.

The first new structure to be erected will be the pathological building, which will replace an old building at Monument and Wolfe streets, and will cost \$600,000. Funds for it are already in hand. The additional buildings will be erected as money is forthcoming, and it is believed that men and women of large means interested in the expansion of the hospital will furnish the needed amounts. There are no plans for a general campaign for funds, but individuals will be appealed to to aid in carrying forward the work of the hospital, and a liberal response is expected.

The distribution of the fund required will be according to the following plan:

Additional funds for general hospital purposes, to be added to general endowment, \$2,000,000.

Women's clinic, to provide for obstetrical and gynecological patients, \$400,000, for which plans have been prepared.

Outpatient or dispensary building, to provide for one of the greatest needs of the hospital, \$1,714,000.

Endowment for dispensary, \$1,000,000.

Extension of heating and power plant or new plant, as needed, \$100,000 to \$500,000.

Addition to nurses' home, to provide adequate living accommodations, social and classrooms, \$500,000.

Teaching building for School of Nursing, \$250,000.

Endowment for School of Nursing, \$750,000.

Convalescent branch, \$250,000; endowment, \$500,000; total, \$750,000.

There is also included in the plan of reconstruction the establishment of a clinic for men and women suffering from nervousness and skin disease, modeled after the lines of the Women's Clinic, and representing a total expenditure of \$2,000,000. An addition to the service building will cost \$200,000. A surgical clinic to provide additional room for treatment of diseases of the eye, ear, nose and throat will be added at a cost of \$2,000,000. A new library building, funds for which are already in hand, will be built at a cost of \$100,000.

A proposed new dispensary is perhaps the most important structure of the group, and will be seven stories high. Practically all of the buildings will be high, owing to the lack of ground space. The pathological building will probably be 100x420 feet.

Traffic Booming on Ohio River.

Louisville, Ky., December 6—[Special.]—Traffic on the Ohio River at the present time is the largest he has seen in 30 years, according to John F. Klein of Pittsburgh, who was here recently to meet his towboat, the A. R. Budd, en route to New Orleans with 5250 tons of steel piping for Mexican and South American oil fields.

Captain Klein is quoted as saying: "I have never seen such a boom in Ohio River traffic as there is just now. The Pittsburgh harbor is almost as busy as it was in the old days before the railroads took our business, and the steel and coal companies are buying barges as fast as they can be constructed."

In Louisville an ordinance has just been introduced in the General Council to appropriate \$100,000 for a municipal terminal on the Ohio here.

Personal Mention.

After serving more than 25 years as president of the Ohio Valley Improvement Association, Col. John L. Vance of Galipolis, O., at the annual meeting of the association held in Paducah, Ky., last week, announced his resignation because of advancing age. Only a year ago Colonel Vance was elected president of the association for life. His resignation caused profound regret.

NEWS AND VIEWS FROM OUR READERS

[Publication in this department of letters from our readers does not mean that we either approve or disapprove the views expressed. We believe in a full and frank discussion of the mighty questions of the hour, for only in this way can the truth be found. Therefore we often publish letters with which we do not agree.—Editor Manufacturers Record.]

Americanism Means Protection Against Foreign Ills of Every Form.

H. W. DEXTER, Jacksonville, Fla.

It is my belief that the business men of the South are at last awakening to the stern necessity for prompt measures of relief from the intolerable conditions which exist and which have been created because of our Government heads overlooking the interests of the American people while endeavoring to trade for votes that they might be firmly entrenched in their positions.

The old time-worn term, free trade, has proven a misnomer, and at last protection of our industries, which is logical in this period of readjustment, necessitates just what has been done by the Southern Tariff Congress.

Americanism in its truest sense means that the American citizen, whether he be a capitalist or a laborer, should be able to point with pride to his flag as an emblem of protection and to be able to refer to his Government as being founded on the Rock of Ages, against which foreign competition in trade, foreign influences, anarchism, Bolshevism, communism and attempted foreign domination and influences all are shattered because of the fact that American Government stands for Americans and personal liberty, and brooks no invasion or interference with the rights and privileges of its citizens.

As an exponent of America, the MANUFACTURERS RECORD stands out in front of every worthy move looking to the advancement of the interests of America and American citizens, and is to be congratulated upon its fearless, faithful presentation of things that make for the good of Americans.

The people of this grand country during the last campaign were like unto a sick man who groped in the dark for a physician in whom they were ready to confide and describe their ailments and ready to take whatever remedies he might prescribe. They found the physician and have overwhelmingly shown their confidence and put their trust in him, and are taking a bitter dose today in the hope that this dose will heal existing differences, and they will be able to obtain the long-sought-for relief from the intolerable conditions which have been created and which have prevailed, due to governmental conditions over which the rank and file had no control.

It is the hope of the business men, as well as the rank and file of the intelligent people of this country, that the new regime will not fail to immediately undertake the correction of existing ills, enact laws that will make for civic righteousness, steady business and eliminate the feeling of nausea due to the recent developments in the investigation of the Shipping Board.

I congratulate you upon your championing the cause of protection for American capital and labor.

This Would Indeed Be a Sad Life if All Thought as Does This Reader.

H. M. CROSS, Brookline, Mass.

I thank you for publishing my recent letter to you in full.

I cannot expect you to allow me to go on with my views. I am content with having had my one hearing, though I would gladly contribute from time to time on tariff questions if you are willing to allow your readers to see all sides. I get the impression that you are an orthodox Christian of the old type, and probably a deacon or elder in a Presbyterian or Baptist church.

Your religious views I think are out of place in a business paper, though no one can question your legal right to air your personal religious opinions in a publication which you own.

Your religious views are offensive to Jews, Unitarians and the great number of so-called "liberal thinkers" of numerous varieties, as spiritualists, and the great number of so-called "infidels."

These classes, all combined, must make a very considerable percentage of your readers. In fact, I do not think that as much as 25 per cent of your clientele is made up of persons who are in sympathy with your "orthodox" expressions. Personally, I am one of the large class who do not see in the facts of human life and the processes of nature any evidence that there is any personality in the universe which concerns itself any more with the actions and fate of men, than it does with flies or microbes.

[We trust that Mr. Cross is wrong in believing that so large a proportion of American people are atheists or infidels or "free thinkers." It seems to us that life must be very dreary to men who have no hope beyond the grave.—EDITOR MANUFACTURERS RECORD.]

The League Covenant—Altruism Alone Not Sufficient for the Task.

East Palestine, O., November 24.

Editor Manufacturers Record:

Attached is an expression of the writer's views on the mooted question of the League of Nations Covenant in its religious aspect.

I have found real, lasting profit in reading your splendid magazine. You have approached the big questions of this critical period with a commendable frankness. I am sure that the thinking peoples of both the North and South cannot be otherwise but appreciative of the help you have afforded and continue to lend in this hour.

Accept this contribution for its worth to you.

W. L. INGERSOLL.

Has it not been well said that if it be of God it will stand, but if it be of the Devil it will fall? What nation of the world dominating type has in the past been able to stand before His fierce anger? He chose to spare not even His chosen race. A perverse nation, or League of Nations, like Israel, will suffer swift judgment if it wilfully turn its face from Him.

The International League Covenant, purposing to federate the constituted powers of earth for common protection of life and the establishment of lofty ideals of justice and equity, ideals to which, either from necessity or purely altruistic motives, many great nations have subscribed, will fall ultimately if it does not have the mark of Divine approval. God has spoken. He has decreed this.

With all respect to the League adherents, I cannot see that there is any evidence of the stamp of God's favor toward it. It does not go beyond the measure of humanitarian effort. It would ameliorate human suffering and attempt to bring about better physical living conditions for all races. All this must be on the plane of purely human effort. It is an affront to the wisdom and purposes of God, for it ignores the necessity of God's gift to the world of His Son. It has taken world redemption out of His hand, and would offend His heart of Mercy. Until the race is essentially changed, or until evil is entirely eradicated from earth by Divine effort—and only God can do this, philosophies, cults, isms and pagan faiths having failed—a League Covenant sealed by the blood of every man on earth will fail.

In contemplating the formation, when weaving the fabric of the Covenant, the framers not only omitted every kind of recognition of God, but denied His assistance in the formation. The creature, enamoured of recent victory and his self-sufficiency, essayed to deny recognition to the Creator, choosing to write a weak, ineffectual lot of peace terms. This action was not taken, unwittingly, for a company of American bishops and ministers sent in resolutions urging some religious service in recognition of the overruling power of God.

The consuming passion has seized men, in this age, to accomplish the mighty in reform, morally and spiritually, independent of the great source of righteousness. Interchurch world movements, world alliances, etc., have had, or are having, their chance, but many have fallen out of line. A wreck must mark the end of

each and all if not in accord with His will. They may be altruistic and noble, yet each is only the illumination or by-product of Christianity if not in conformity with Scripture.

Like the intricate map that defies the child's efforts to be built with blocks of various shapes, except there be a familiar face on the back, this great world map will never be put together successfully except the face of Him, who the world must know aright, be back of it.

Evidently Not a Respector of Judges, and Thinks the Federal Reserve Board Is a "Hawk of American Industry."

GARRETT BAXTER, Attorney at Law, Norfolk, Va.

While writing I want to say something about the matter you print from the pen of Judge Chas. E. Chidsey. I do not see how you come to print so much nonsense in one article. That article is as empty, as senseless, as misleading as the many opinions rendered from the bench of declining American justice.

The business of a bank is not to create credit. It is only the medium of credit and of trade and commerce. It is the business of production and of distribution to create that condition which makes for exchange of wealth and the consequent creation of banking and of credit. That judge who cites more than he knows and talks way off the mark when he talks of his own ideas has gotten the cart before the horse, because he does not know any difference between a cart and a horse.

I wish you knew some of the ideas of economics and of law expressed by the judges down here in this old State of Virginia. I tell you as a solemn fact that the judges do not know what they are doing, and they are doing more to injure industry than anything or anybody else.

Let me tell you that there would be short banking credit and large industrial activity if the people who are engaged in the activities of industry were not so greatly hedged by that colossal hawk of American industry called the Federal Reserve System.

A South Carolinian Who Wants Protection.

[York (S. C.) Engineer.]

"I understand," said Mr. J. Fitch Pursley, one of the leading business men of Clover, yesterday, "that the Republicans of the Ways and Means Committee of the House of Representatives have already commenced gathering data looking to a radical upward revision of the tariff laws. I am interested. The low-tariff and free-trade doctrine that the politicians used to preach sounded good to me, because they were plausible and I did not know any better; but now I am sick and tired of it. I am in the manufacturing business now, and I am where I can see things more intelligently. Take, for instance, this one item of cottonseed oil. During the war crude oil sold for more than 20 cents a pound. Now we are having to sell it at 7½ cents. The reason is largely because of competition of oils from Asia and other foreign countries. These oils, just as good, maybe, can be bought here and sold cheaper. Take coconut oil, for instance. All they have to do is to gather the nuts, take out the meats and extract the oil themselves or ship the meats here. This cuts the price of our cotton oil, and the cutting of the price of cottonseed oil means the cutting of the price of cottonseed. The farmers are thus hit as hard as the oil mills, and all for the benefit of Chinese, Japanese and other Asiatics. We need protection to keep this foreign oil out of our country, and when it comes to revising the tariff laws upward, I certainly hope that our representatives in Congress will undertake to see that we get some protection also."

Many New Industries Have Located in Memphis.

Memphis, Tenn., December 6—[Special.]—During the past year up to October 23 122 new industries have made arrangements to locate here. They will give employment to 2600 persons and have capitals amounting to \$10,800,000. This does not include several large industries now under course of construction, which were started last year. During the whole of 1919, 133 plants were established here, and indications point to these figures being surpassed by this year's new industries.

Radium as a Factor in the Safety Movement.

New York, N. Y., November 29—[Special.]—Radium, the most mysterious and most powerful element known to science, has now been linked with the safety movement and will lend its power to the prevention of avoidable accidents.

The great mass of accidents in factories, in mines and in other industrial institutions where darkness is a creator of danger are being eliminated through the newest invention of science—radium luminous material. Illuminated watches are familiar articles. The same material that illuminates these is now being employed in great factories on all power-line switches where fumbling in the dark might mean electrocution to the operator.

High-pressure gauges, which are installed as an insurance against dangers, are deprived of a great deal of their safety value through inconstant lighting. Their dependability as indicators is increased tremendously through making them safe 24 hours a day by the application of radium material, which is invariably luminous in the dark. Steam gauges and water gauges of all sorts are making use of radium to increase safety.

Electric switches are often set in places which are not lighted. This includes electric-lighting equipment which is usually visible only after the light it controls has been turned on. A spot of radium luminous material makes them easily located in the dark, so that in emergency they may quickly be made use of.

The industrial uses of radium luminous material are many. Bolts that are necessarily attached to the dark under-ports of machines and equipment are being touched with dabs of this material. In mines where the carrying of oil lamps or the placing of electric-lighting equipment is not feasible, radium has been found to be a boon to humanity. There are dark corners in the dark underground channels which miners must traverse, corners where danger lurks—these are made safe through its unvarying luminosity.

The value of the element to mariners is commencing to be recognized. Not only the compass dials, but the steering wheels, the gauges and other instruments which should be instantly and uninterruptedly visible have been touched with it. Motorists, motorcycleists and the operators of any machinery which has indicating dials, or gauges which tell of the speed of the motor or the quantity and mixture of fuels and oils, are finding the solution of their difficulties in radium luminous material. The hazard of uncertainty has been reduced.

While radium is the most valuable element in the world, a gram, which is about a thimbleful, costs \$120,000, as opposed to \$150 for an ounce of platinum. So powerful is it when mixed with other materials that even the minutest particle is effective in making material self-luminous for years. It is this quality which makes radium luminous material commercially possible.

Its great value is due to its scarcity, and to the difficulty in isolating it after it has been found. Much of the radium of the world is now found in America, in carnotite fields. A great portion of this comes from the Undark mines in the Paradox Valley of Colorado.

The ore is found in narrow seams in the ground. It is sorted and packed in 100-pound sacks and transported 60 miles to the nearest railroad station on the backs of burros and mules. Thence it is shipped in carload lots 2900 miles across the continent to an extraction plant in Orange, N. J.

Two hundred and fifty tons of ore treated with an equal amount of chemicals and water yields one gram, which is about the size of a pinhead.

In addition to the use of radium luminous material on machinery in industrial plants, it is used extensively for the marking of any corner or spot which should be visible in the dark. Angles of tables and chairs, corners in rooms, numbers to indicate cubbyholes or doorways on which there is no other illumination are touched with a spot of undark. Even the valuable electric torch increases its efficiency when it has a touch of the material on it so that it can be reached instantly in an emergency in the dark.

When other lights fail, when fuses blow out, wires break down, radium will glow dependably without danger of explosion or of burning.

THE IRON AND STEEL SITUATION

Sagging Prices in All Steel Products Except Pipe— Iron Off \$17 from Peak Price.

Pittsburgh, Pa., December 6.—[Special.]—Since last report the independent market on two additional finished steel lines, wire products and sheets, has dropped to the Steel Corporation or Industrial Board level. This leaves only one important steel-mill product—pipe—at above the basis. Tinplate had dropped some time ago, while the drop of bars, shapes and plates was recorded in last report.

The great independent market on steel products, excepting pipe, has thus come to a quiet and ignominious end. The scarcity of steel, on which the advances were chiefly predicated, is over. It should be remembered, however, that the price advances did not bear the same relation to the scarcity that ordinarily obtains. Steel was scarce at various times before the war, but no such spectacular advances occurred. The difference was caused by the general unsettlement of affairs, whereby men's minds were more open. So many things were deranged that buyers did not consider any price impossible, and as a rule they were able to pass advances on, with interest, to their customers. In the old days, when prices got up to a certain point buyers showed that they would not stand for additional advances, and producers accordingly refrained for fear of spoiling their market. In the advance of the past year the sellers realized that the market would break some time in any event, and the most profitable course would be to make as much out of the situation as possible while the going was good.

The steel mills take the new situation very philosophically, and are quite resigned to the situation. In fact, the fancy-priced market lasted considerably longer than a great many, probably the majority, expected. At the end of last year, when the industry was recovering from the iron and steel strike and was beginning to recover from the coal strike, the common prediction was that the steel scarcity would last for six months, or to July 1. It really lasted about four months longer, but its prolongation undoubtedly was due to the railroad strikes that began April 1, and that was a factor that could not be counted upon in advance with any certainty, though some railroad troubles had been thought far from improbable.

Present Steel Market.

Market prices on lines in which prices are now the same by the Steel Corporation and the independents are as follows: Bars, 2.35 cents; shapes, 2.45 cents; plates, 2.65 cents; plain wire, 3.25 cents; wire nails, \$3.25; tinplate, \$7 per base box, 100-pound; blue annealed sheets, 10 gauge, 3.55 cents; black sheets, 28 gauge, 4.35 cents; galvanized sheets, 28 gauge, 5.70 cents. Pipe remains above the Industrial Board price, and may not see an equalization for several weeks, if not months. Indeed, there are still three markets in pipe. There is the Steel Corporation price, a set of discounts based on 57½ per cent off list; the regular list of the independents, at 54 per cent off, and some premium prices for early delivery still higher than the 54 per cent basis.

An interesting illustration of the fact that while in a sellers' market some producers talk a great deal about "costs," they are really in chief part seeking such prices as are obtainable is furnished by the circumstance that of the various important steel products, pipe is considered the most profitable to the mills at the Industrial Board price, and yet it is pipe that stays above the Industrial Board level. That is simply because there is still a good demand for pipe.

While there is a great decline in the independent steel market by prices coming down to the Steel Corporation or Industrial Board level, that level is still a high one by comparison with pre-war prices, for on the basis of a weighted average of all important products except rails the Industrial Board prices are 81 per cent above the 10-year pre-war average. Of course, 81 per cent is a very small matter compared with the heights reached in some sales last summer. Sheets sold in limited quantities on the basis of about 10 cents a pound, and that was about 4½ times the pre-war average, say an advance of 350 per cent.

As to rails, not included in the comparison showing an 81 per cent advance, the Steel Corporation or Industrial Board price is

\$47 for open-hearth, or 57 per cent advance over the pre-war price, while it now seems probable that the independents will not sell at \$47, but will demand \$57 and be content with what orders the railroads give them at that figure, this representing an advance of 90 per cent.

While for a long time the independent steel producers asserted that they could not afford to come down to the Steel Corporation prices, the common prediction in the trade today is that now that the independents have come down to that level, the next thing some of them will do will be to shade that level, though probably by no large amounts. In most cases, when independents referred to their having high costs, particular mention was made of "overhead," and if it is a matter of overhead, light running simply makes it worse, as the charge against each ton is increased. There are tales going around now, however, of manufacturers having included in "overhead" various items that are not usually charged under that head. An extreme case is mentioned of a steel company including in its "overhead" certain bonuses or divisions of profits given to superintendents of departments.

Other Steel Products.

Taking the whole subject of steel prices, from the mill down to the ultimate consumer, the price revision is occurring from the top downward rather than from the bottom up. Large profits, of course, had been added all along the line. If the price of rolled steel was up two cents a pound as compared with the pre-war price, the price of a tool in the hardware store was up much more than two cents a pound, the case cited being merely an extreme one to illustrate the point. Following declines in rolled products there have been some declines in manufactured steel products. Within the past week cold-finished steel bars have been reduced from 4 to 3.60 cents base, or \$8 a ton. Bolts and nuts have been reduced by an average of about 20 per cent. Rivets are still quotable at 4.50 cents, but are expected to get down to 4 cents, and possibly less. Chain is still at 7.25 cents base.

Hot and cold-rolled strip steel has been reduced a cent a pound from the old official prices, and half a cent a pound from the market as quotable in the past two or three weeks, the new prices being 4 cents for hot-rolled strips and 7 cents for cold-rolled strips. Manufacturers state that the reductions were not made in expectation that any new buying of consequence would be induced, but rather in order that prices in contracts they still had with customers could be revised and customers be encouraged to place additional specifications against contracts.

Pig-Iron.

Foundry iron remains quotable nominally at \$37, valley furnaces, there having been no inquiry of importance in the past week to induce competition. By way of voluntary reductions on the part of furnaces rather than on account of any inquiry of importance coming into the market, Bessemer is down \$2.50 and basic \$2, the new quotations being \$35, valley, for Bessemer and \$33, valley, for basic. Of the 13 merchant furnaces in the two valleys, seven are out of blast and only six running, while these six are referred to as being "on the ragged edge" in the matter of orders. Four months ago the market was advancing sharply and furnaces were talking about inability to supply the demand. As a matter of fact, however, the demand at that time was simply for prompt deliveries. Consumers were in a hurry to get pig-iron promptly to complete orders, but were not buying far ahead. When the market has undergone such a spectacular reversal, a greater than had ever occurred in pig-iron market history, it might be assumed that a great many mistakes had been made, but that is not the case. Few, if any, buyers have been caught with any considerable quantity of high-priced commitments, and as to the furnaces, they never claimed that they were sold fully through the year. When they were getting advancing prices in August they were simply selling early deliveries, and only in small lots.

While basic pig-iron has now declined \$15.50 from the top of the regular market, but \$17 from the level at which a few sales were made in only two or three months, \$2 of this decline having occurred only in the past week, it is improbable that there will be declines at anything like such a rate in the next few weeks. There is no incentive for furnaces to reduce prices, as there is no

business offered. A furnace could not sell any large proportion of its output, say to July 1, and to sell a small part would provide merely an incumbrance. The furnaceman much prefers to stay out of the situation, blow out his stack and wait for a clearer outlook. The market will, of course, decline several dollars more before it begins to swing upward again, but the last of the decline will probably occur as demand is reviving and furnaces begin to compete for business on which to get into blast again. In other words, pig-iron may not be down to \$30 this side of April 1, while it is practically certain that it will go below \$30 before it experiences any upward movement.

Dullness Reported at Birmingham.

Birmingham, Ala., December 6—[Special.]—Lower prices of pig-iron have not induced any great amount of business with the Southern manufacturers, and there has been further reduction in production. The sales of the past two weeks are off, although consumers can find pig-iron at \$38 per ton, No. 2 foundry, 1.75 to 2.25 per cent silicon. The piles of pig-iron on Alabama furnace yards have increased, and an estimate is that the total accumulated stock is now around 100,000 tons. Many contracts are still pending, with instructions to hold up deliveries. Another furnace has been blown out in this district. Inquiries are lacking now, and no predictions are being made as to when recovery will start in. However, general conditions in the Birmingham district compare favorably with conditions in other iron and steel centers. The Republic Iron & Steel Co. has but one furnace in operation now. The Woodward, Alabama and Gulf States Steel each have a furnace making iron. The Tennessee Company (Steel Corporation) has two furnaces on foundry, one on ferromanganese and six on basic. The total furnace operations of this district is now under 20, the lowest in a long time. Production for November will be but little under what it was in October, but the last month will make a record so far as small production is concerned. However, statisticians continue estimating a larger output for the year than in 1919, when 2,130,092 tons were reported officially.

The shipments of pig-iron from this district are not only in small lots, but are slow. Home consumption is steadily declining. The cast-iron pipe plant operations in this district are not more than 35 per cent capacity. The sanitary-pipe plant operations are hardly that much, this branch of the industry feeling the effect of a depressed market. It is shown in a casual survey that out of 160 floors, there are 146 down in the sanitary-pipe industry, but few plants operating to anything like capacity, and several being shut down entirely or just operating to melt what iron may be on the yards.

Pig-iron manufacturers are looking forward to a change in conditions. Inventory time is rapidly approaching, and consumers do not care to be found with a lot of high-priced iron on their yards, hence the cessation of buying for the time being. In plant of readjustment in the iron and steel industry in the Birmingham district but little reduction of wages has been noted. Curtailment of production has been the principal idea. In steel-mill operations there has been a fairly good run right along. The Gulf States Steel Co. at Alabama City has three of its open-hearth furnaces in operation. The labor at this place demurred but little, apparently, to the 15 per cent cut in wages. The plant will probably take a fortnight off for the holidays, extending into next year.

The Republic Company has closed down the Spalding ore mines. Other ore mines of the district have either been closed down or are operating on short time.

There is a strong demand for steel wire nails, and the plants here are striving to make quick delivery.

The semi-annual convention of the Southern Metal Trades Association will be held in Birmingham this week, with delegates from practically every Southern State in attendance. William T. Harding of Raleigh, N. C., president of the association, in the call for the convention states that matters of particular importance are to be considered in this meeting, among other things, the adoption of a revised constitution and by-laws and declaration of principles, individual contracts with employees, a plan very generally in effect in this district, by the way, discussion of costs, business outlook and other matters.

Charcoal iron manufacturers are enjoying a little impetus in

business, as wheel manufacturers in particular get busy on the railroad orders. The charcoal production has been kept up steadily, and there is not a very large tonnage of this product on the yards. The prospects are very bright on reports of large orders for cars by the railroads. The charcoal iron consumers in the immediate Birmingham district are buying steadily, their purchases, however being confined to lots of a few hundred tons each.

The coke market has taken on quite a slump, but there is steady production, and confidence in the future is expressed by producers. Some of the larger iron-manufacturing concerns, making their own coke, have a good supply on hand, accumulated largely during the summer in anticipation of an emergency. No inquiry for coke is reported by independent concerns, and there are few, if any, sales being recorded. The by-product coke oven plants in this district are active. Quotations show some weakness, furnace coke being quoted around \$9 to \$10 and foundry coke \$12.50, and a report is current that these prices can be bettered. Old contracts are on the wane, and with no business coming in there may be warrant a little later for extensive curtailment of production. Local consumption is far below levels of two or three months ago.

The coal supplies are plentiful now in Alabama, even domestic coal approaching the demands.

The scrap iron and steel market is still practically nothing, although there is more confidence expressed this week as to an early recovery. Old contracts are still being delivered on, and this will be a fact into next month, though unfilled tonnage is steadily nearing the end. Quotations are weaker and merely nominal. A reduction is noted for this week in the heavy melting steel with no transactions heard of.

Following quotations are given in the Southern territory on pig iron and iron and steel scrap:

PIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$38.00; No. 1, foundry, 2.25 to 2.75 per cent silicon, \$39.25; iron of 2.75 to 3.25 per cent silicon, \$40.25; iron of 3.25 to 3.75 per cent silicon, \$41.25; iron of 3.75 to 4.25 per cent silicon, \$42.25; charcoal iron, f. o. b. furnaces, \$55.00.

OLD MATERIAL.

Old steel axles.....	\$26.00 to \$28.00
Old iron axles.....	24.00 to 25.00
Old steel rails.....	18.00 to 20.00
Heavy melting steel.....	16.00 to 18.00
No. 1 R. R. wrought.....	16.00 to 18.00
No. 1 cast.....	26.00 to 28.00
Stove plate.....	22.00 to 24.00
Old car wheels.....	27.00 to 29.00
Old tramcar wheels.....	26.00 to 28.00
Machine shop turnings.....	10.00 to 11.00
Cast iron borings.....	10.00 to 11.00

Welch Grape Juice Co. to Erect \$400,000 Plant in Arkansas and Conduct 100-Acre Farm for Grape Culture.

The Welch Grape Juice Co. of Westfield, N. Y., will erect at Springdale, Ark., a \$400,000 plant, site for which has already been purchased. The company will plant in grapes a 100-acre farm, which is located about three miles south of Springdale. Three hundred thousand grape roots have been shipped from the Welch factory for use in the Springdale territory.

Relative to this development the Welch Grape Juice Co. wires the MANUFACTURERS RECORD from Westfield:

"Report is true that we have bought factory site at Springdale, Ark., and plan to build within a year. Concord grape culture throughout Ozarks is being greatly stimulated, and our 100-acre farm is to encourage growers and furnish object-lesson."

New Churches Predominate in Charleston's Building Activities.

Charleston, W. Va., December 6—[Special.]—Activity in building in West Virginia's capital city during the month of November was largely confined to new churches. Building permits covering erection, remodeling and repairing in the city of Charleston amounted to \$231,000 for November, but of that amount, \$200,000 covered the erection of three churches—the First Christian Church to cost \$100,000 and the Lawrence M. E. Church \$100,000. Few of the permits issued were for new homes.

RAILROADS

Trying to Get the Plumb Plan Under Another Name.

An address delivered by W. W. Atterbury, vice-president of the Pennsylvania Railroad System, before the National Industrial Conference Board November 18 at the Hotel Astor, New York, was made public last week in pamphlet form. He asserts that strenuous efforts are being made to make the railroads, so far as their employees are concerned, a "closed shop," and that being accomplished, to dominate the labor situation throughout the country by being able to threaten complete suspension of transportation facilities and of all industry if labor demands here or there at any time are not granted.

He declares that the labor leaders are frankly dissatisfied with the provision of the Transportation Act that disputes between carriers and their employees shall be settled by the United States Labor Board, composed of equal representatives of the railroads, the employees and the public, because the public, which eventually pays the bills, is given a voice in settling such matters, and furthermore, that the labor chiefs are trying to force the railroads to concede that which Congress refused to give them either in the Plumb plan or in the so-called Anderson amendment to the Cummins-Esch bill, the latter being to continue centralized enforcement of discipline as during Government operation of the roads.

To put railroad employees all in "The One Big Union" as it is termed would, says Mr. Atterbury, produce a condition that "is fraught with the greatest danger to all other industries. With all railroad workers completely under the domination of one organization, it can compel the granting of the demands of its members who may be employed elsewhere. Under threat of a complete suspension of transportation the country over, or affecting one branch of industry, manufacturers and railroad managers will be at the mercy of the union chiefs. All production may continue or cease merely at their word." Again he says: "This 'One Big Union' is but another name for the Plumb Plan League."

But as Mr. Atterbury looks ahead he sees trouble for the labor leaders, that there will be a split between the radicals and the conservatives in labor's ranks; that railroad wages, artificially established by the labor board, will remain high, while other labor, through the working of economic law, will fall to a level in proportion to general conditions, so that those employed in outside industry will be the first to demand a reduction in the wage of railroad employees. He thinks the leaders, recognizing conditions, will agree to an adjustment of railroad wages in proportion more or less to other wages, and then among their own men they will be faced with the spirit of insubordination which they have fomented against the railroad officers.

In conclusion, Mr. Atterbury says he has no fight with organized labor so long as it does not bring about the "closed shop," advocate or practice sympathetic strikes, act to limit production, nor undermine discipline. "Within reasonable limits," he remarks, "it is a healthy spur to bring about fair conditions as between employer and employee."

"When, however, it attempts to nationalize industry, and in effect set up a super-government, and a small minority of the total population attempts to coerce the whole, it becomes a menace to our civilization."

"I say to you, with all solemnness, that this is what is in progress at the present time with the railroads."

Promoted to Be Vice-President.

C. M. Harris, manager for some months of the railroad shop section, industrial department, Westinghouse Electric & Manufacturing Co., has been appointed vice-president of the Hagerstown & Frederick Railways Co., which operates interurban railways and central stations in Maryland. Mr. Harris was graduated from Pennsylvania State College in 1901 as an electrical engineer. After filling various positions with the Pennsylvania and the Baltimore & Ohio railroads he became master mechanic of the Washington Terminal Railroad, from which he went with the Westinghouse Company to handle the electrical business of railroad shops.

Dallas Has Two Interurban Plans.

A report from Dallas, Tex., says that the Texas Power & Light Co. will announce to the city before January 1 its decision regarding the provision of its franchise that requires it to build two interurban lines into Dallas, each to be not less than 30 miles long and work to begin by that date. One may be built to Denton and another to Greenville, Tex. A line to Terrell has also been suggested, and a choice will be made, it is understood, from among these three propositions. J. F. Strickland is president of the company.

Wiley Blair, chairman of the committee which proposed to secure financing for a line to Wichita Falls, has made an informal report to Acting Mayor Fred Appel, and the latter has announced that the committee was unable to dispose of the \$5,000,000 first mortgage bonds which it had to place to assure the success of the plan, only about half of that sum being subscribed for. Consequently the Wichita Falls idea will be left out of the interurban plans for the present. Money market conditions prevented the underwriting of all the bonds, according to advices received by Mr. Blair from George T. Bishop of Cleveland, who had been active in the matter.

Railroad Financing.

Carolina, Clinchfield & Ohio Railway has applied to the Interstate Commerce Commission for authority to issue \$5,000,000 6 per cent 15-year debentures.

Jacksonville Terminal Company, Jacksonville, Fla., has been authorized to issue two series of 7 per cent notes, one amounting to \$100,000 and one for \$67,500 for the purpose of renewing outstanding notes of equal sums. It is stated that the company's request for permission to also issue renewal notes to the amount of \$538,425 and to issue another note for \$50,000 for a loan was denied for the time being.

Wheeling & Lake Erie Railway has asked for authority to issue \$1,528,000 of 5 per cent refunding mortgage bonds to reimburse its treasury for expenditures on the property.

Official Changes.

J. W. Wassum, general superintendent of the southern district of the Southern Railway at Birmingham, Ala., has been appointed general superintendent of the southeastern district at Macon, Ga., and H. H. Vance, superintendent at Birmingham, has been appointed general superintendent there. O. K. Cameron, superintendent of the Memphis division at Sheffield, Ala., succeeds Mr. Vance, and L. H. Woodall, superintendent at Jacksonville, Fla., succeeds Mr. Cameron. These changes, it is stated, resulted from the resignation of W. T. Caldwell, general superintendent of the southwestern district of the system, who has been succeeded by F. P. Pelter, formerly general superintendent at Macon, and whose headquarters will now be at Chattanooga, Tennessee.

Improvement in Car Supply.

The car-service division of the American Railway Association reports that a decided change for the better in the car situation took place during November, showing an increase in the number of cars available in excess of current requisitions; also that the seasonal falling off in the number of cars loaded with revenue freight in November as compared with October was less than usual. The car supply for grain loading is generally satisfactory, except at certain points in the Northwest. Practically all roads, however, have sufficient box cars for ordinary loading. Cancellation of priority orders on coal cars has made available a large amount of open-top equipment for distribution of commodities other than coal.

Interesting to Street-Railway Men.

Working capital in street-railway valuation is considered and discussed by Delos F. Wilcox, Ph.D., of Elmhurst, Long Island, N. Y., in a November supplement to "The Annals" of the American Academy of Political and Social Science, Philadelphia. There are 24 pages, and anyone interested in the subject will find it discussed in its several aspects, accompanied by information gathered from decisions of various public service commissions.

New Southern Pacific Line to Eagle Pass.

Beeville, Tex., December 4—[Special.]—What was formerly known as the New York, Texas & Mexican line of the Southern Pacific system is to be extended west from Beeville to Eagle Pass, Tex., about 175 miles. Engineers, headed by I. A. Cottingham of the Southern Pacific, are now in the field locating the route of the proposed extension. The Southern Pacific already has a branch line into Eagle Pass, connecting with the transcontinental line at Spofford.

The primary purpose of building an extension from Beeville to Eagle Pass is to give the Southern Pacific a new Southern route between that border port of entry and Houston. This new line will be of much importance in the matter of handling Mexican traffic, it is explained. Its construction has been under consideration for many years, but it was not until the recent announcement was made that the Kansas City, Mexico & Orient planned to build its line south from San Angelo, Tex., to Allende, Mexico, situated about 50 miles below Eagle Pass, on the National Railways of Mexico, that the decision was reached by the Southern Pacific to block, in part at least, this proposed competition by building the long-deferred extension.

New Equipment for Several Railroads.

Virginian Railway has received from the Pressed Steel Car Co. of Pittsburgh a number of extra large coal cars ordered some months ago. They have six-wheeled, articulated trucks, and the marked capacity of the cars is 218,000 pounds, or 109 tons. Allowing for 10 per cent overload if necessary, the cars will carry 120 tons each. The cars are of unusually strong, all-steel construction, and possess several new features.

W. L. Mapother, vice-president of the Louisville & Nashville Railroad, is reported saying that the company's orders for new equipment will total \$20,000,000. As recently noted, contracts were let for 2000 steel hopper cars and 43 passenger cars, the latter including 25 day coaches, 8 baggage cars, 7 dining cars and 3 postal cars. New engines (it is reported that the company will immediately purchase 35) and other equipment will compose the aggregate named.

Wheeling & Lake Erie Railway will purchase 2000 all-steel 50-ton gondola cars and 1000 steel underframe 40-ton box cars through the National Railway Service Corporation.

Switching Engine of 135 Tons.

In connection with the illustration of a large switching locomotive in the issue of the MANUFACTURERS RECORD of November 25 a typographical error made the weight of the engine appear as 70,000 pounds on the drivers, whereas it should have appeared as 270,000 pounds, the entire weight of engine and tender being 425,000 pounds. This notable locomotive was built by the Baldwin Locomotive Works of Philadelphia for the Cambria Steel Co.

B. & O. Orders Over \$3,500,000 of Rails.

Orders for steel rails aggregating 85,000 tons, for next season's delivery, have been placed by the Baltimore & Ohio Railroad Co. with the United States Steel Co.'s plants at Pittsburgh, the Illinois Steel Co. at Chicago and the Bethlehem Steel Co. at Sparrows Point. This involves an expenditure of between \$3,500,000 and \$4,000,000.

Claims \$627,402 for Deficit.

Atlanta, Ga., December 6—[Special.]—A claim for \$627,402.57 has been filed with the Interstate Commerce Commission by the Atlanta, Birmingham & Atlantic Railroad as a deficit incurred in operation during the six months' period of March to August, inclusive, this year, protection against which was guaranteed to railroads under the Transportation Act of 1920.

New Receiver Named.

Alexander New, who has been receiver of the Missouri, Oklahoma & Gulf Railroad since 1914, has resigned, and the appointment of Arthur Miller, attorney, of Kansas City, Mo., is announced, together with the resignation of Mr. New.

Commendations, Kicks and Comments

Depression Deliberately Brought On.

J. F. JAMES, President and General Manager, Mascot Stove Manufacturing Co., Chattanooga, Tenn.—The reason we discontinued this subscription was on account of the radical views that your editor has taken on many questions. The most important and sacred trust that it has been the opportunity of the United States to participate in he has fought to a finish—the League of Nations.

We firmly believe that had the League of Nations been adopted when President Wilson returned to this country and presented it to Congress and the Senate, we would not be going through this depressed period that we are now passing through.

So, this is one of our reasons for discontinuing the MANUFACTURERS RECORD.

[Our entrance to the League of Nations would have destroyed American sovereignty, involved us in every war of the world and would not have helped business. Business depression was definitely brought on by the Federal Reserve Board.—Editor Manufacturers Record.]

Keep Out the Vile Breed.

GUY S. JACKSON, proprietor Southern Building Material Co., Norfolk, Va.—I, for one, wish to thank you for your article of October 4 entitled "This Nation Must Not Be a Spawning Ground for Anarchy," and for other articles you have written of like nature. I think this is the greatest work any man can do for our country, and I think the admission of Russian Bolsheviks and others of like vile breed is the greatest menace to our country. I hope that you will bring this article and others to the attention of every member of Congress and the Senate and to the President-elect and others, and in various ways keep after them to the end that such radicals as Secretary Post and other Socialists in Washington be kicked out and kept out, as the men running our Government seem to be asleep to the imminent danger.

I have used the copy I had to the best advantage I knew how, and trust that you will keep up the work actively and with your usual energy until the danger is past. I brought the matter to the attention of our Congressman-elect and have it sent to the Virginia Association for the Common Good, of which I am a member and which works in Congress on matters of public welfare, but an infinite and incessant work must be done, and started promptly.

Reflections on the League.

E. J. GRIFFIN, D.D.S., Edenton, N. C.—I am enclosing check for renewal of my subscription. I have not always agreed with your position against Wilson and the League of Nations. Wilson's mistake was his ambition for himself and party to get the entire credit for the League, a natural though unworthy ambition. Had it passed, with the Lodge reservations, there would have been no real difference, for without any League at all, did we not go over and fight? And we would do the same thing again if occasion demanded it. Now, I believe that had Germany known in the beginning that the United States would have gone in, that we would have had no war. I am also of the opinion, had the United States accepted the League, with or without the Lodge reservations, it would have been merely a guarantee that we were willing to join in preventing war; first, by diplomacy; second, by influence as a powerful deterrent, and, third, if need be, with just what we did do. I fully believe that most of the fight on both sides in the Senate was mere politics. I believe that the result would have been first this: We could have said to all members of the League, "As we have agreed not to fight, let us also agree not to prepare to have or make war," which would in time greatly lessen our recruiting stations. Relieve us from the burden of taxation to build enormous battleships or maintaining large standing armies, that militarism may become a lost art." If Christian statesmanship is to advance, then legalized destruction of men and property must find a way of abandonment.

Mexican Line for a Mining Region.

Monterey, Mexico, November 12—[Special.]—It is reported that the Mexican Government has begun a survey to locate the route of the proposed railroad between Agua Prieto and Naco, on the Northern border, and from Agua Prieto to a connection with the Chihuahua division of the National Railways of Mexico below Juarez. It is stated that the States of Sonora and Chihuahua will assist the Government in financing the construction. This road would serve an important military purpose, in addition to providing transportation facilities for a part of the border that is rich in minerals.

LUMBER AND BUILDING MATERIALS

LAUNCH STATE-WIDE MOVEMENT FOR RE-FORESTATION IN LOUISIANA.

**Plans for Boys to Reforest Undeveloped Tracts
Amounting to Hundreds of Thousands of Acres—
Will Publish Forestry Textbooks for School Use.**

New Orleans, La., December 6—[Special.]—At the first meeting of the Forest Advisory Board recently appointed by Governor Parker and created under the act of the last General Assembly, plans were advanced for a State-wide movement that may result in the reforestation of hundreds of thousands of acres of land by boys under the supervision of R. D. Forbes, superintendent of forestry. It is planned to have farmers set aside certain denuded tracts of land for exclusive growing of trees under the direction of the boys.

The plan is very similar to that developed at Urania, La., a number of years ago, and which has met with marked success, and if generally adopted would insure an enormous future supply of forest products for the State.

The new board approved an expenditure of a considerable sum of money for forest protection and patrol work. Plans were also discussed for enforcing the new law, which provides that all land along the right of way of railroads be denuded for a distance of 200 feet on each side of the tracks. This will minimize the danger of forest fires originating from engine sparks.

A summer school is to be conducted at the State University for advanced and practical course in forestry under the direction of Prof. J. G. Lee, who has had practical experience in the reforestation work at Urania and at Bogalusa.

Col. W. H. Sullivan of the Great Southern Lumber Co. offered prizes amounting to \$500 for the best results demonstrated in forestry work by the boys. Following up this work, the Department of Conservation will issue a textbook on forestry to be used in the schools and by others interested in the work.

Among those attending the meeting were Prof. L. G. Lee of the State University, Col. W. H. Sullivan of the Great Southern Lumber Co., S. T. Woodring of the Calcasieu Lumber Co., at Lake Charles; Henry E. Hardtner, president of the Louisiana Forestry Association; R. D. Forbes, State superintendent of forestry and secretary of the board.

Harbor and Civic Improvements for Hardwood Center.

Helena, Ark., December 6—[Special.]—The Mississippi River Commission has directed that a survey of the river from Trotter's Point revetment down to and including the Helena front be made, and that plans be prepared and costs estimated for the construction of harbor improvements.

This city is the second largest hardwood distributing point in the world and one of the largest coal distributing centers on the river south of Cairo. A large terminal is to be built very shortly to handle the increased volume of business. In and about the city improved highways costing \$4,000,000 are being built, which will connect Helena with the territory west of the Arkansas and White rivers.

North Carolina Lumber Dealers Organize.

Raleigh, N. C., December 6—[Special.]—As a result of conferences held between lumber men of this State, "The Air-Dried North Carolina Pine Club" has been organized, with a total of 54 charter members, representing 300 sawmills throughout the State. The organization was perfected chiefly through the efforts of the smaller dealers, whose business has been hard hit recently, due to the recent decline in wholesale prices of lumber.

The next meeting of the club will be held here on January 26, when a constitution and by-laws will be adopted.

The officers of the new organization are: C. D. Orrell, president; A. B. Clark, vice-president, and P. H. McGill, secretary-treasurer.

Building Activity at Okmulgee.

Okmulgee, Okla., December 6—[Special.]—Building permits issued in Okmulgee in the month of November provide for buildings, the estimated cost of which is \$238,400. This amount is approximately \$50,000 greater than the total amount of permits issued in November, 1919.

The total of building permits issued in Okmulgee during the first eleven months of 1920 is \$2,120,150.

Indications are that the total for the year 1920 will be close to \$3,000,000, as several large building operations are just being started, permits for which will be issued during the month of December. The new operations include the seven-story Bank of Commerce Building at Seventh and Grand Streets, which is now under construction and which will cost \$500,000; the superstructure of the Hotel Okmulgee, for which bids will be called for shortly, the cost being estimated at \$500,000; the Knights of Columbus Building, estimated to cost \$65,000; the McCracken-Mitchell Building estimated to cost \$65,000, and the new library and new hospital annex, the estimated cost of each being \$85,000.

The foundation for the Hotel Okmulgee has already been completed at a cost of \$42,000, the total investment in the site and preliminaries bringing the outlay in the hotel to date up to about \$80,000. The foundation of the new Bank of Commerce Building will be completed before January 1.

Will Organize Building Association Section.

To promote home buying through educating the general public in the advantages of joining building associations and to create closer business relations between these organizations and real-estate interests, a movement has been launched by the Real Estate Board of Baltimore to organize certain associations into a body known as the Building Association Section. Accordingly, a meeting will be held at the offices of the board on Friday night, December 10. Letters have been sent to about 175 associations requesting them to send representatives to the meeting.

The plans to form such a section were advanced several months ago and a committee was appointed to make a survey of the building associations in the city, which number close to 600. According to the plan of organization, building associations are eligible to membership which have been established at least five years, and which have paid dividends for a similar number of years and have a volume of business amounting to \$100,000.

National Housing Conference at Bridgeport.

Bridgeport, Conn., December 6—[Special.]—The National Housing Association will hold an important housing conference here on December 9, 10 and 11. Leaders in the housing movement, practical builders, architects, engineers, business men, as well as housing experts will discuss "The Housing Shortage and How to Meet It." Every phase of the housing problem will be discussed and various plans suggested for solving the shortage will be suggested. In addition, the delegates will see the project of the Bridgeport Housing Co.

All sessions will be held at the Hotel Stratfield. Sessions will begin at 10 o'clock Thursday morning and close at 5 p. m. Saturday afternoon.

Building Many Houses in Asheville.

Asheville, N. C., December 4—[Special.]—During the past 11 months permits have been issued for 130 new houses, ranging from a small two-story cottage to a \$35,000 dwelling, but there is still an acute shortage of houses in the vicinity. Local contractors report, however, that many new houses are being planned now that materials have dropped in prices, and it is believed the new year will start off with an even larger number of permits than did the present year.

For the 11 months just passed permits for buildings costing \$1,370,000 have been issued, whereas during the whole of 1919 permits amounted to but \$915,025. In April permits were issued for buildings valued at \$217,510.

Mexican Oil Activities Increase Demand for Lumber.

Tampico, Mexico, December 6—[Special.]—An increasing demand for American lumber for building operations in Tampico and the different oil camps and towns of this region is noted. The intensive well-drilling campaign that is now being waged by different companies has caused large orders to be placed for derrick timbers and other materials that enter into the development work. Distribution of lumber out of Tampico has become an important industry on the part of local dealers.

In order to supply the needs of its customers to more advantage, the Reitan-Power Lumber Co. has purchased the 1200-ton schooner W. J. Patterson for its exclusive use between Tampico and Galveston. The vessel is capable of carrying 700,000 feet of lumber, and will make her first voyage for the new owners this month. The Patterson was formerly a unit of the Bowie Lumber Co.'s fleet.

Pete Reitan, head of the Reitan-Power Lumber Co., left for the United States recently to complete arrangements for the purchase of another lumber-carrying boat which will have a capacity of 1,500,000 feet of lumber. He will also charter another vessel, which will have a capacity of more than 1,000,000 feet.

All of the boats will be in service by the latter part of December. They will be for the exclusive use of the lumber company.

Southern Lumber Mills' Activities for Week.

New Orleans, La., December 2—[Special.]—For the week ending November 26 reports of 136 mills of the Southern Pine Association are as follows:

	Cars.	Feet.
Orders on hand beginning of week.....	10,886	237,324,306
Orders received during the week.....	1,922	41,978,402
Total.....	12,788	279,302,708
Shipments during week.....	2,551	55,716,391
Orders on hand end of week.....	10,237	223,586,317
Total feet.		
Orders.....		41,978,402
Shipments.....		55,716,391
Production.....		54,635,276
Normal production these mills.....		89,432,979

Shipments exceeded production for the week by 1.87 per cent, while orders were 23.25 per cent below production, and orders were 24.66 per cent below shipments.

The production was 38.84 per cent below normal. Shipments were 37.70 per cent below normal production, and orders were 53.06 per cent below normal production. There was a decrease in "orders on hand" during the week of 5.79 per cent.

Production and Imports of Lath.

Washington, D. C., December 6—[Special.]—Imports of lath into the United States for 1919 were three times those in 1918, according to the Bureau of Foreign and Domestic Commerce. All that was reported in 1919 came from Canada, and nearly 99 per cent of the reported imports in 1918 were from the same country. The quantity and value of lath imports for the last three years were as follows:

	Quantity.	Value.
1917—Total.....	675,054,000	\$1,906,482
1918—Total.....	282,302,000	966,448
1919—Total.....	802,651,000	3,037,900

In 1909 the production of lath in the United States is given by the Forest Service as 3,703,195,000 pieces, which is the largest reported total in 12 years. In 1912, 2586 mills reported lath production of 2,719,163,000 pieces; in 1918, 909 mills reported lath production as 1,362,187,000 pieces. Lath production has decreased generally during the last few days. It fluctuates with the number and class of buildings erected.

Birmingham Company Fabricating Structural Steel.

Birmingham, Ala., December 4—[Special.]—The Birmingham Steel Corporation is filling a number of contracts for structural steel to be used in the erection of office buildings and industrial plants in the South. Orders now on hand insure normal operation of the plant for a considerable period. During the war this plant fabricated steel for ships made at Mobile, and upon the completion of this contract the manufacture of structural steel for bridges and buildings was undertaken.

Sand and Gravel Industry in Alabama Expanding—New Plant Being Established and Older Ones Are Making Improvements.

Montgomery, Ala., December 4—[Special.]—Development of sand and gravel production in this section has increased tenfold in the past five years, and it is predicted that within the next few years the development will be tremendous. As a result, new companies are being organized to develop nearby lands and established companies are increasing their facilities.

One of the most important plants is that of Hugger Bros., located about six miles from here on the Central of Georgia Railway. It has a capacity of 40 cars a day, and \$40,000 has already been invested in equipment. Cook & Laurie Company's plant, on the Western Railway, has a capacity of 15 cars a day. The Kirkpatrick Sand & Cement Co., in Elmore county, has a capacity of 15 cars daily; the Underwood & Walker plant, nearby, has a daily output of 10 cars; the Kershaw Sand & Gravel Co., in the same county, produces 20 carloads daily; the Smiley Sand & Gravel Co., at Cheraw, has a capacity of 15 cars, and in addition the various railroads operate sand pits with a capacity of about 20 tons daily.

The Roquemore Sand & Gravel Co., recently organized with a capital of \$250,000, is getting ready to open operations near here with a plant having a daily output of from 30 to 40 cars. The Chehaw Crystal Sand & Gravel Co., which was incorporated recently with a capital of \$200,000, will establish a large plant at Chehaw.

Due to the large extent with which concrete is replacing other building materials in building projects, the demand for sand and gravel has increased enormously. It is being used extensively on the farms for buildings, silos and general construction work. In addition, the road-building activities in this and nearby States has added to the demand. The industry has been retarded considerably during the past year, due to shortage of cars and labor, but both conditions have improved and development on an enlarged scale will be the program for the coming year.

France a Market for Manufactured Wood Products.

Washington, D. C., December 4—[Special.]—The French Government places at \$2,000,000,000 the value of the furniture and other house furnishings destroyed during the war, says J. A. M. de Sanchez of the French Commission in the United States. France is greatly in need of manufactured goods, and although the country has reduced her total imports from the United States by over \$200,000,000 since the beginning of 1920, the reduction has not been in the imports of manufactured goods. A lack of accurate knowledge of the value of the French market, and not the exchange situation, says the French Commissioner, is the real cause of the failure of American manufacturers to obtain at least a portion of the foreign trade which is now going to Belgium, England and Italy. American goods are in general not higher in price than those of Belgium and England, and in most cases are at least 10 per cent higher in quality.

Addition to Georgia Lime Plant Completed.

Cartersville, Ga., December 3—[Special.]—Extensive additions and improvements to the established plant of the Ladd Lime & Stone Co. here have been completed at a cost of nearly \$100,000. The manufacture of lime for building purposes will now be possible, and future prospects for business are bright. Although the company has operated a plant for manufacturing crushed limestone, it has never been possible to make lime. The machinery and equipment is modern and complete.

Increased Building Activity Foreseen.

Monroe, La., December 6—[Special.]—Increased building activity is looked for in this section early in 1921. Projects now under course of construction are being rushed to completion, and many new building enterprises are being planned by architects. A contractor engaged in work in the section writes the MANUFACTURERS RECORD as follows: "Conditions in this territory show the owners holding off waiting for prices to drop. We expect great activity in new work by March or April of 1921."

THE DALLAS HOUSING PLAN.

Bulk Purchase of Materials and Sound Financial Management Chief Factors in Erection of Good Homes at Low Cost.

Dallas, Tex., December 4—[Special.]—One hundred and twenty houses have been erected by the Dallas Housing Co., organized by the Chamber of Commerce here to help meet the housing shortage. The success of the plan, which has already attracted attention throughout the country, makes its adoption possible for other cities of the South and throughout the country.

The company was organized through the efforts of members of the Chamber of Commerce in the spring of 1919 to relieve the shortage of houses and to stimulate contractors and builders in their erection. Five hundred thousand dollars was the fund sought by the Chamber of Commerce, but when \$150,000 had been subscribed and paid in the work of building houses commenced. The stock was subscribed in blocks of from \$100 to \$5,000 each. Since that time, although 120 houses have been erected, the company has not returned any principal or interest, because it is using all money paid in to rehabilitate a revolving fund to permit erection of more houses. Hundreds of inquiries have been received for houses, and these requests are being satisfied as quickly as possible, and while none of the houses are rented, many of the persons buying them move from rented houses, so that they are available for others.

The company finances itself from the cash and monthly payment, and the sale of first-lien mortgages against the property sold. These mortgages are from 45 to 50 per cent of the sale price. The houses sell for from \$3,900 to \$5,250 each, including the lot, usually 50x150 feet, and all necessary improvements. The price depends, of course, upon the size and character of the house and the section of the city in which it is located. To meet the needs of persons employed in various parts of the city houses were erected in four different sections, so that practically every prospective homeowner's desire could be satisfied. Some of the houses were built in established localities, among houses previously erected, while others were built in sections hitherto undeveloped.

The houses were built under the direction of local architects in order to secure houses entirely applicable to climatic and local conditions of every nature. The completed plans were furnished to a large sawmill, which cut the lumber especially for each separate house and shipped the lumber requirements in their entirety in a single car, so that construction work was greatly facilitated and waste reduced to a minimum, besides greatly reducing the ordinary handling and sorting expenses. The construction force employed in erecting these houses consists of a superintendent in charge of all the work and a foreman or a leader for each job. In this way overhead was reduced to a minimum, and care and economy in building were secured.

All the material entering into the construction of the houses was contracted for in advance and in bulk, and by building in volume the construction cost has been so reduced that the houses erected by the company have sold at from \$1,000 to \$1,500 below the cost of erecting the same houses one at a time on widely-separated lots. The cost was also minimized thereby on street improvements where necessary, and the conveniences, such as water, sewer, electric light and gas were secured. From 6 to 50 houses have accordingly been built in each section, so that the work was centralized; co-operation became easier and careful supervision, at least cost, was made possible.

In addition a sufficient quantity of materials for nearly 100 houses was purchased and stored in local warehouses before the peak prices that prevailed recently were reached, and this action has resulted in a big saving.

The company has no definite rules regarding the sale of these houses. Its purpose is to interest those who are planning to own a home, whether they are able to pay half or only a small part of the entire amount. In fact, the cash or monthly payments are determined wholly by the moral risk. The cash payments have averaged, however, about \$500 each, and the monthly payments, including the interest on both notes from \$45 to \$75 per month, and are determined by the salary of the purchaser and considerations consistent with sound financing. Several large employers

of labor have become interested in the plan and are assisting their workmen in buying houses through the company's plans.

There is nothing, say these employers, that is so effective in destroying the unrest among employees, because of the high cost of living and other conditions, as home owning under conditions such as the housing company has made possible. Purchasers are enabled to get away from the high rents and have room for a garden of good size. The interest under the deferred-payment plan of the Dallas company usually averages less than half what the house would rent for ordinarily, so that in the purchase the buyer is applying toward the payment of his home half of what would otherwise be paid as rent.

The houses vary greatly in size and exterior appearance. Most of them, however, are of five and six rooms, of the bungalow type, frame construction. All city conveniences are provided, and the workmanship and materials are first class. Every construction, wiring and plumbing detail is carefully supervised to insure correctness. The ground for the first house was broken in Oak Cliff on April 28, and was occupied about July 1. With few exceptions, all of the houses have been erected on improved streets and either on a car line or adjacent to one. The houses have been so erected that without detracting from the general appearance one or two additional rooms may be added whenever the owner feels able to shoulder the additional burden.

Georgia Brickmakers Plan Advertising Campaign.

Macon, Ga., December 6—[Special.]—Members of the Georgia Brick Manufacturers' Association will wage an advertising campaign collectively in the interest of encouraging the use of brick for building purposes, it was decided at a meeting recently held here. Advertisements will be run in leading papers of this State and elsewhere.

Members of the association believe that the high cost of labor is retarding building operations. Despite the fact that building materials of many kinds have been reduced in price, wages are still high, it is pointed out, and as a result building projects are being delayed by persons who feel wages should also be reduced.

Building Material Notes.

From various parts of the South come reports that building activity continues and buying is good. Prices remain firm, with a possibility of small reductions if prices of coal can be reduced. Labor seems more productive than for many months, and is everywhere more plentiful. Many hospitals, apartment-houses, hotels and bank buildings, together with residences in considerable numbers, are making an active market for these products. Optimism prevails generally, and a bigger building campaign than ever before is anticipated by contractors and builders throughout the South, judging from the large number of plans now being prepared by architects.

The demand for building materials of all kinds in the vicinity of Baltimore continues good and prices remain firm. With the approach of bad weather building projects under way have been pushed with renewed vigor, and as a result the demand for materials has been accelerated. Besides many frame and brick dwellings that owners are rushing to completion for occupancy soon, the large factories that want to get their buildings at least "under roof" before very bad weather sets in are buying much material. Concrete work on foundations and other outside jobs has been rapidly going forward. The demand for common building bricks, face brick and fire-bricks has been good, due to the erection of new buildings and a desire to get materials on hand for them in advance of actual needs.

Similarly in Washington the demand for materials of this kind continues good, and builders look for continued activity. Many brick houses are being erected, and a number of church buildings and apartment-houses are being erected, in addition to a large \$2,000,000 hospital.

The Southern Pine Association of New Orleans will be represented at the Eighth National Housing Conference, to be held at Bridgeport, Conn., December 9, 10 and 11 by Morgan S. E. Hite, a prominent architect and builder of New Orleans.

Reforestation Program of the Great Southern Lumber Co. Calls for Careful Seeding Methods.

New Orleans, La., December 4—[Special.]—Every care will be exercised in the execution of the plans of the Great Southern Lumber Co. to insure a continuous supply of forest products for the expansion of its lumber and paper-mill operations, as announced in recent issues of the MANUFACTURERS RECORD. Caution will be observed in utilizing cut-over timber lands and reforesting vast areas to make permanent the establishment of the huge paper mills that are to be constructed at Bogalusa through certain production of the necessary forest products. With this in view the company will use seeding methods that have been tried successfully in various parts of the country, and similar in many respects to the plan adopted for cutting a tract of hardwood and loblolly pine at Princess Anne, Md., as announced in these columns last week.

Heretofore it has been the policy to permit certain trees to remain scattered over the timber tracts, but this plan has not been particularly successful, due to damage from wind and lightning storms and fire damage from grass and underbrush. The plan which will no doubt be followed consists of leaving intact small areas of timber land where good trees have already become well developed, and thus insure a constant supply of seed. Being grouped in such a manner, they will be somewhat protected from storms. To insure against fire damage the underbrush will be cut away and inferior trees that might retard the growth of good seed trees will be removed, and the tract will really become a forest garden for growing and propagation of trees. These areas will be specially marked and fenced in, so that loggers will not make a mistake and remove any of the trees set aside as seedlings.

Important experiments will also be made in the development of timber lands through artificial seeding upon land which has not been used for many years for agricultural purposes or even covered with forest growths. Slash and loblolly pine will be planted in much the same manner as farming would be undertaken, and every attention to protect the virgin growth from fire damage and from retarded growth through dense undergrowth will be given. Effort will be made to encourage owners in the growth of adjacent tracts which are free from forest growth and lack agricultural development possibilities. It is certain that these extensive areas can be profitably developed within a short period through planting rapid-growth pine into profit-producing areas, and the lumber company will purchase the growth for use either in manufacturing lumber or for making paper. In other States farmers who considered much of their land valueless have reaped considerable profit through artificial planting.

The lumber company has already secured a great amount of long-leaf seed, especially during the past year, when the production was very high. This will be employed in the artificial planting projects.

Since the program of the Great Southern Lumber Co. is the largest of its kind to be undertaken in this country or perhaps anywhere in the world, it is attracting widespread attention. The fast diminishing supply of forest products of all kinds and the acute shortage of paper-manufacturing materials can be most effectively relieved, experts say, through reforestation, prevention of forest fires and more careful use of forest products through elimination of all possible waste, and each of these plans, together with innovations and adjuncts that have been introduced by the company and workers of the various Government departments, will be practiced more fully than ever before in carrying out the company's program.

Texas Cement Plant Has 2000 Barrels Daily Output.

Houston, Tex., December 6—[Special.]—The new plant of the Texas Portland Cement Co., placed in operation during this summer, is now producing about 2000 barrels of this material daily. The original plant was designed for a two-unit operation, but only one was installed. In the fall of 1919 construction work began on the second unit, and this was completed during the latter part of July.

Oyster shells are used as the raw material at this plant, being dredged chiefly at Red Fish Reef, in Galveston Bay.

Birmingham Building Activities Increase Over 1919.

Birmingham, Ala., December 6—[Special.]—The building record of 1920 shows more than a 20 per cent increase over that of 1919. The year's activity has been characterized by the erection of a large number of edifices rather than a few large projects. Many small frame residences have been erected. Repairs and alterations to business properties have been numerous, and many stores have been established.

During November permits for the erection of 52 dwellings were issued. The total permits issued for the month amounted to \$381,553, compared with \$540,773 in November, 1919.

The early spring promises considerable structural activity. Building materials are rapidly stabilizing at more conservative levels. When stabilization is completed, it is believed, there is going to be much building activity in Birmingham.

Among the new structures of importance now under way are the Woodlawn and Central High Schools, foundations for which are being dug.

Southern Gravel Good for Building Purposes.

New Orleans, La., December 3—[Special.]—Good gravel and sand for building purposes is being produced throughout many States, whereas previously this material was obtained elsewhere. D. V. Johnson of this city, speaking about the situation recently, said: "There was a time when the gravel used locally was shipped here from other parts of the country, a condition which no longer exists. Southern gravel is now recognized as second to none, and is being used in many parts of the country where formerly gravel from other sections was used."

New Paint Plant Begins Operation.

Wilmington, N. C., December 6—[Special.]—The Atlantic Paint & Varnish Co. has occupied its new plant and is now manufacturing from 25 to 40 barrels daily. The new plant consists of a reinforced concrete structure formerly occupied by the Standard Cement Construction Co., and two warehouses of large size. New and modern appliances for making and mixing paint have been installed at considerable cost, and the plant is one of the most modern of its kind in this section of the country.

Plans for \$500,000 Bank Building at Richmond.

Richmond, Va., December 4—[Special.]—Plans are being prepared for an addition to the Federal Reserve Bank here to cost \$500,000. The building, which will be 36x120 feet, will be a six-story structure, of steel and reinforced concrete, with a limestone exterior.

Lumber Notes.

According to representatives of lumber associations, the lumber situation in Florida is very good. It is predicted that within the next few months lumber prices will be considerably increased, due to the extreme shortage of houses which must be met shortly.

Several Memphis mills report having received orders for considerable quantities of hardwoods to be used by Southern railroads in constructing new cars and repairing old ones. The receipt of several large orders and many small ones has been quite encouraging, and it is felt that railroad buying will be quite active within the next few weeks.

At Memphis there has been a recent revival of the hardwood trade, particularly in receipt of a number of export orders. Recent orders include 400,000 feet of oak, 250,000 feet of cypress and tupelo gum, 100,000 feet of ash and orders for about 100 carloads of various kinds of lumber and timber. Most of these orders are for delivery to France and England. At Pensacola and Tampa there is general activity in lumber export trade, particularly to Central and South American countries. Similarly at Mobile, Ala., a number of ships are loading weekly, and a number of shipments are being made regularly. Quite a number of ships are due at this port shortly to load large quantities of lumber for England. In addition, there is much business coming from Central American countries.

GOOD ROADS AND STREETS

First Steps to Make Effective \$50,000,000 Good Roads Bond Issue in West Virginia—Many Road-Building Materials Available in State.

Charleston, W. Va., December 5.—[Special.]—The first step toward carrying out the decision of the people of West Virginia as expressed at the polls on November 2 for a system of State highways at an expenditure of \$50,000,000 was taken at the end of last week, when Governor Cornwell announced the appointment of a committee of five members of the Senate and House to prepare the necessary bills to make the bond issue effective. Governor Cornwell named as members of the committee Delegate F. O. Saunders, a new member from Cabell county; George W. McClintic of Kanawha county, who is serving his second term; J. S. Zimmerman of Hampshire county, in the Eastern Pan Handle; Senator E. H. Morton of Webster county and Senator E. B. Stewart of Morgantown, both of whom are hold-over Senators.

The new committee has a big task ahead of it, in order to safeguard the expenditures to be made under the \$50,000,000 bond issue, but in its task it will have the co-operation and the benefit of the experience of the West Virginia State Road Commission and of the Federal road engineer. On the State Road Commission are Major C. P. Fortney, who served with Major General Goethals in Panama, and Julius K. Monroe. The Federal road engineer is B. F. Gray.

The special committee will hold its initial meeting at an early date for the purpose of organizing and beginning the work of drafting suitable bills for submission to the Legislature. It will be necessary for the committee to hurry since little more than a month will elapse before the Legislature assembles on January 12 for its first session when bills are to be introduced but none passed.

Even the most ardent advocates of the amendment which will permit the issue of \$50,000,000 in bonds are not sanguine of the passage of enabling legislation without spectacular fight.

In drafting new legislation it will be necessary for the special committee to so amend the laws in force relating to roads as to make them conform to the change in the constitution and in the new laws to be enacted. Heretofore the construction of roads has been a power vested exclusively in the hands of the county courts. The constitutional amendment changes that will vest such a power in the hands of whatever body may be created to administer the new road laws and to build the State roads.

As to just what kind of material will be utilized in building the State system of roads, remains to be seen, but there is within the State of West Virginia an abundance of material, well distributed, which can be readily utilized in connection with road construction. In fact more than 200 samples of rock from 42 out of the 55 counties of the State have been tested by the United States Bureau of Public Roads. It is stated that out of the samples submitted 61 or 9.26 per cent were considered suitable when used in connection with Portland cement concrete as a binder; 141 samples or 68.5 per cent were considered suitable when used in connection with asphalt as a binder, and 91 or 44.2 per cent were suitable for water-bound macadam, after the elimination of the sandstones and quartzites.

With the use of material found in West Virginia, it is believed that freight costs can be reduced and much time also saved in avoiding long-distance hauls. While no one has ventured a prediction as to what the cost per mile for constructing roads will be, it is estimated at not less than \$25,000, though by using less expensive materials it is possible that cost may be reduced somewhat, and under present industrial conditions the labor cost may not be so high as has been the case during the last few years.

Building Lee Highway to Boost Knoxville Growth.

Knoxville, Tenn., December 6.—[Special.]—With the completion of the Lee Highway through this city, which will make possible a direct good-roads route from New York to New Orleans, it is expected to bring thousands of tourists here and to otherwise prove of great benefit in the development of the resources of the

outlying sections. In view of the many attractions of the country through which this road will pass, it is expected to be a favorite one for tourists.

Dr. S. M. Johnson, director-general of the Lee Highway, has established headquarters in this city to arrange for the national conference to be held here January 19. Many prominent men have been invited to attend.

United States Tractor Production 164,590 in 1919.

Washington, D. C., December 4.—[Special.]—A total of 164,590 tractors were produced in the United States during 1919, according to an investigation made by the Bureau of Public Roads of the Department of Agriculture. Reports were received from a total of 156 companies, but only 80 firms had manufactured tractors during the year. It is believed that the output of these 80 firms represent at least 95 per cent of the total tractor production in the country during the year. Due to labor troubles and shortage of materials, there was a decrease in production over the amount previously estimated.

The number of tractors of different sizes built by the 80 companies is as follows:

Makers' rating.	
Belt horse-power.	
6 and less.....	3,760
9, 10 and 12.....	1,991
16 and 18.....	22,012
20 and 22.....	94,653
24, 25 and 26.....	15,546
27, 28, 30 and 32.....	17,597
35 and 36.....	2,453
40, 45 and 50.....	1,954
60 and over.....	1,624
Not given.....	3,900
Total.....	164,590

The following is a summary of the reports received from the manufacturers for the years 1916 to 1919, inclusive:

	1916	1917	1918	1919
Number manufactured.....	29,679	62,742	132,697	164,590
Number sold in the United States—	27,819	49,594	96,470	136,162
Number sold for export.....		14,854	36,351	19,693
Number on hand December 31.....		15,525	15,401	27,740

Oil Development Necessitates Building Good Roads.

Waco, Tex., December 6.—[Special.]—The extensive development of oil fields in the vicinity of McLennan county and adjacent territory has brought the people face to face with the road-building problem, and much interest is now being manifested in the necessary improvements. Well after well is going down and production is increasing daily. This means that transportation of supplies and materials as well as other ordinary traffic over the roads is rapidly increasing. With the completion of the necessary roads to this city, which is the largest in the section, general business activities will greatly expand, and persons living in the outlying regions will also be benefited.

Plans are now being discussed for making a complete survey of the territory now being developed as an oil-producing region with a view to ascertaining its good-road needs. Similarly means for financing the building of these new roads are being prepared, and general interest is being manifested in the early completion of these plans so that actual work may be started.

Building Dixie Highway Bridge and Approaches.

Atlanta, Ga., December 6.—[Special.]—Contract for the erection of approaches and the reconstruction of the Altamaha Bridge at Darien has been awarded to the Brooks-Callaway Company of this city by the Georgia State Highway Commission, and the work is to be completed within about three months. It will involve an expenditure of about \$136,000, which will be paid by the Federal Government and the State of Georgia. The entire project will be five miles in length, consisting of bridges of steel and timber construction. The roads will be graded and surfaced with shell.

The completion of this work will open the Dixie Highway from Savannah to Jacksonville, and will be a great aid to tourists.

Georgia Highway Construction for Full Development of State's Natural Resources.

Atlanta, Ga., December 6—[Special.]—Indicative of the progress made in the construction of a system of trunk line highways connecting every county seat to permit of the full development of Georgia's natural resources, the State Highways Department has just issued a statement describing the number of construction projects under way in the southern sections of the State. The details just announced cover the territory across the southern end of the State from the Alabama line to the Atlantic Coast. Several main arteries of traffic are being constructed through this particularly rich and important section of the State.

The statement is as follows:

"The Macon-Brunswick-Jacksonville trunk line which is looked upon as one of the most important features of the State system, includes eight miles of concrete road in Glynn county from Brunswick toward the county line, costing \$277,000 and being 50 per cent complete. Another project planned contemplates the construction of 11 miles of sand-clay road.

"This same route, in Wayne county, includes a 3½-mile stretch of sand-clay road east from Jesup, costing \$79,000. This has been surveyed and approved. It will be a line in the New York-Jacksonville route until the Darien bridge is completed. In Jeff Davis county, from Hazlehurst to Lumber City, is another seven-mile stretch of sand-clay road on this line. A survey of this link is now being made.

"In addition to these main trunk lines, numerous individual units of highway construction are being carried on or are ready to be begun in the two districts, so that the trunk lines will be connected by a network of shorter roads radiating from county seats and important cities and towns."

The highways leading to Brunswick are being pushed to completion with very gratifying results. Glynn county has given substantial evidence of her determination to occupy a position in the front rank of Georgia counties in the construction of good roads and when the present program is completed it is doubtful if any county in the State can boast of having accomplished more in this direction.

Work is rapidly progressing on the Altamaha bridge, and when this is completed the connecting link in the Savannah-Brunswick-Jacksonville highway will have been added. The closing of this bridge has necessitated the closing of this highway, which was one of the most picturesque and popular in the State, and which closed Brunswick to all tourist travel between Savannah and Jacksonville.

Of no less importance to Brunswick will be the Macon-to-the-Sea highway, which project, as the State highway Department points out, is being pushed with all possible dispatch. There remains but a few miles of road to be hard-surfaced to complete the highway from Brunswick to the Wayne county line, where it will connect with the highway leading to Jesup. The counties north of Wayne are all practically unanimous in voting the necessary bonds for the completion of the highway to Macon, and when the two or more counties that have not fallen into line do so, the highway to the sea, via Brunswick, will become a reality.

Arkansas Providing Extensive System of Highways.

Little Rock, Ark., December 4—[Special.]—In a report now being prepared by W. B. Owen of the State Highway Commission, a State system of highways on which all Federal and State aid available for road building may be concentrated will be recommended to the Legislature. This system should contain not less than 3000 miles of roadway, nor more than 6000 miles, says the report. Such a system would care for from 80 to 90 per cent of all the traffic of the State and benefit 90 per cent of the population. It would represent from 80 to 90 per cent of the assessed valuation of all real property in the State.

With the concentration of all available funds on a small system, which would honeycomb the State, good roads might be made available in every county, and the systematized plan would provide better facilities for marketing of crops and facilitate traffic throughout the State.

During the period from 1917 to 1920 7054 miles of highway were constructed within the State, 1804 miles being constructed under the general road laws and the remainder provided through

special acts. The total available funds from Federal and State aid amounted to \$5,975,840.53. The greater portion of road-building funds is derived from automobile and truck licenses. In 1919 the Legislature appropriated \$950,000 from the automobile license funds to meet the requirements of the Government for Federal aid.

Work on Boone Way Being Rapidly Advanced.

Louisville, Ky., December 6—[Special.]—All the mountain work on the Boone Way, an interstate thoroughfare extending from Louisville to the cabin that was the birthplace of Daniel Boone in North Carolina, will probably be completed during 1921, according to Col. James C. Maret of Lexington, Ky., who has been one of the principal promoters of the road since its inception.

From Louisville to Lexington the Boone Way, which is co-extensive with the Midland trail, is one of the best highways in Kentucky. Beyond Lexington a 775-foot stone bridge on the route over Round Stone Creek and the Louisville & Nashville Railroad has been contracted for.

In the spring the six or seven miles of the road from Lexington to Corbin will be surfaced, as will the seven-mile grade around Gauley Mountain up the Rockcastle River.

A four-mile gap between Livingston and Mt. Vernon will be built by labor from the State penitentiary at Frankfort, which has already constructed five miles of this road in the mountain section during the past two years.

Grading work has been completed between Mt. Vernon and Crab Orchard, on the Lexington division, and plans are being made to finish up this work next year.

That portion of the route between London and the Rockcastle River, in Laurel county, will be macadamized during 1921.

During the past year Knox county has done a large amount of construction, and easily expects to have its part of the Boone thoroughfare graded and surfaced to the Bell county line before the end of 1921.

In Bell county the highway is already completed from the Knox county line through Pineville and Middlesboro to Cumberland Gap.

Word comes from Virginia, Tennessee and North Carolina that they expect to make an equally good showing with work on the road next year, a large part having already been completed during the past year.

Highway Transportation Show at New York.

New York, N. Y., December 6—[Special.]—The Motor Truck Association of America will hold a highway transportation show in the Twelfth Regiment Armory, Columbus Ave. and Sixty-second St., here, from January 3 to 8, inclusive. The purposes of the show are: To further demonstrate both through discussion and display the necessity for a national highway system to support the general and economic use of the motor truck; to further educate the general public in the economic advantages, in the employment of the motor truck as a means of transport; to educate and sell prospective motor truck users.

Paving of Single Highway Means Much to Town.

Kinston, N. C., December 4—[Special.]—The paving of the highway from Pink Hill to this city will do much to encourage local business, since several thousands of farmers will then have easy access to the city. This new road will be 16 feet wide, eight inches thick, and will be one of the best constructed improved highways in the eastern part of the State, to be of concrete asphalt construction. It will shorten the road to Pink Hill by three miles and enable farmers of the section to reach here from one to two hours quicker than formerly.

Texas Iron-Ore Beds to Be Developed.

Longview, Tex., December 2—[Special.]—Development work on the large iron-ore beds in Cass county, 50 miles northeast of Longview, is under contemplation by Pratt Bros. of Minneapolis, Minn., who will start work as soon as the machinery and equipment can be installed. A drying plant is now under construction, and a large ore-crushing plant will be built. The ore field is understood to be owned by the Barringer interests of Philadelphia and leased to Pratt Bros.

TEXTILE

Improvements to Blair Mills.

Increase in capital of the Blair Mills of Belton, S. C., from \$25,000 to \$100,000 was recently noted in these columns. Relative to the progress of their plant and improvements contemplated, E. B. Rice, president and treasurer, writes as follows:

"I started with one loom making Turkish towels in a borrowed space, getting my power through a wall from a bottling plant, buying all my yarn and doing all the work.

"Now we have 22 acres of land one mile from the town of Belton, with mill building, modern mill construction 80 by 168 feet, warehouse and picker room. We have 48 looms and all the carding and spinning to take care of these looms, 1548 spindles. We have six bungalows.

"We have just completed an 'L' to our building in which we will move our slasher and warpers. This will give us room for more looms later on. We manufacture Turkish towels and Terry drapery and we produce over 250,000 pounds per year and normally it is valued at about \$200,000. I have taken my brother into the company as an active member and we expect to continue to grow. We now have an order with Saco-Lowell Shops for 2016 spindles with complementary cards, slubbers and speeders. We already have the floor space for these.

"The next move will be to put up a small bleachery, which everyone says we cannot do. However, I predict that within a few years we will be doing our own bleaching.

"I overlooked saying that I started with one loom in 1910, then added one more, and in 1916 built our present mill. I had 16 looms at that time with no-carding and spinning. In 1916 we put in carding and spinning and more looms."

Silk Mill Nearing Completion at Harrisonburg, Va.

Construction is nearing completion upon the branch silk mill previously announced to be erected at Harrisonburg, Va., by the Stehli Silk Corporation of New York. The plant building is fireproof, being of the mushroom type of concrete construction, 78x100 feet and two 16-foot stories high. About three-fourths or 6780 feet, of the structure consists of steel-framed windows, and a hot-air heating and ventilating plant, as well as automatic sprinkler system for fire protection will be installed. The first floor will be equipped for spinning the raw silk received in hanks from the silk-producing countries of China, Japan and the East Indies, and the second floor will contain the machinery for twisting and winding the thread on spools, in which form it will be shipped to the company's main plant at Lancaster, Pa., for weaving and dyeing.

The machinery, all to be electrically operated, has been ordered, and will probably arrive by January. The building has been planned so as to permit the erection of additions to meet future requirements. Construction is under the supervision of Fred Messer & Son of Lancaster, Pa., and Betts & Boice received the contract for the concrete work.

Improved Conditions in Textile Districts.

Greenville, S. C., December 4—[Special.]—In a statement obtained today from W. J. Thackston, an important factor in the textile business here, it is asserted that the cotton mills of Greenville and this section are beginning to receive substantial orders again after several months of dull business, and that he believes they will all be able to resume operations about the first of the year.

The substantial orders for cloth which have been received by manufacturers within the past few days are believed by local men to be responsible for the slight improvement, it is stated.

Mr. Thackston, who bases his statement on reports from leading cotton manufacturers of this section and from commission merchants, says that he believes things will become stabilized by Christmas, and that the worst of the depression period is about over. Reduction in wages should enable the mills to return to practically full time after the holidays, he says.

Will Erect Factory to Make Tire Fabric.

A plant for the manufacture of fabric used in making automobile tires will be built at Corsicana, Tex., by the Navarro Manufacturing Co., which has recently been granted a charter. The company is capitalized at \$150,000, with the following incorporators: W. M. Clarkson, Jr., J. S. Cain and Bush Wofford.

Addition to Anniston Cordage Plant.

Work is now under way at Anniston, Ala., on the addition to the plant of the Anniston Cordage Co., contractors having recently begun operations. The new section will be three stories high, 100x126 feet, the first floor for carding, the second for spinning and the third devoted to braiding equipment. The production of the company is braided cotton sash cord, and the completion of the addition will provide the mill for a total of 3024 ring spindles. Machinery has been purchased.

Samoset Cotton Mills Improvements Near Completion

Machinery is now being installed in the weaving and finishing plant and the dyehouse of the Samoset Cotton Mills, Talladega, Ala. In addition to these new structures, which are of concrete construction, the housing development providing cottages for the operatives is now approaching completion. Plans on this development outlined in the MANUFACTURERS RECORD earlier in the year stated that buildings and machinery would cost \$1,000,000, the architect and engineer being J. E. Sirrine of Greenville, S. C. The president of the Samoset Cotton Mills is William H. Wellington of Boston, and the vice-president and general manager is W. S. Freeman of Talladega, Ala.

Many Cotton Mills Reopen at Gastonia, N. C.

Gastonia, N. C., December 4—[Special.]—Gastonia's cotton mills, most of which have been standing idle the last two weeks, are again running on part time at least. The Armstrong mills, a dozen or more, started to work Monday morning. Some of them will run full time this week, while others will run only three or four days. The Loray, Gaston's largest mill, after standing idle two weeks, began operations this morning, running 60 per cent of its 90,000 spindles 30 hours a week. The Gray-Separk chain are continuing to operate two and three days a week, working on orders. With possibly one or two exceptions, all of the mills are running this week, part time at least.

So far as can be learned there is practically no change in the market situation. There seems to be a general though vague idea that the first of the year may show some decided turn for the better in the textile business. Admittedly, however, this idea is founded largely on hope.

Textile Mill Notes.

The Florence Mills of Forest City, N. C., has increased its capital stock from \$200,000 to \$500,000.

The Pinewood Knitting Mills of Pinewood, Tenn., has been incorporated by H. A. Grigsby, J. V. McDonough, F. C. Farmer and associates. The capital stock is \$100,000.

The Cotton Movement.

In his report for the close of November, 1920, Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during four months of the season was 4,340,514 bales, a decrease from the same period last year of 900,360 bales. The exports were 1,732,034 bales, a decrease of 282,230 bales. The takings by Northern spinners were 423,350 bales, a decrease of 571,862 bales; by Southern spinners 1,048,717 bales, a decrease of 511,205 bales.

Railroad Improvements in View.

A report from Meridian, Miss., says that President I. B. Tigrett of the Gulf, Mobile & Northern and the Meridian & Memphis railroads and a party of other officials of the lines have made an inspection tour over the properties preliminary to making additional improvements.

Construction Department

EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

DAILY BULLETIN.

The Daily Bulletin of the MANUFACTURERS RECORD is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

Airplane Plants, Stations, Etc.

Va., Hampton—Ballon Hangar.—Constructing Quartermaster, Langley Field, Hampton, will receive bids until Dec. 27 for additional construction and alterations of dirigible-ballon hangars at Langley Field; plans from Constructing Quartermaster.

Bridges, Culverts and Viaducts.

Ala., Heflin.—Cleburne County Comms.; build bridge over Terrapin Creek; steel.

Fla., Crestview.—A. E. Loder, District Engr., Bureau Public Roads, United States Dept. Agriculture, 917 Bell Bldg., Montgomery, Ala.; build Rocky Bayou bridge and approaches on Valparaiso-Bolton roads in Florida National Forest; 1000-ft. timber trestle and truss bridge, earth approaches; bids until Dec. 16. (See Machinery Wanted—Bridge Construction.)

Ga., Columbus.—City; build \$200,000 concrete bridge over Chattahoochee River. Address The Mayor.

Ga., Covington.—State Highway Dept. of Georgia, Atlanta, Ga., will build 528-ft. reinforced concrete pile trestle; cost \$45,000; construct earth fill approaches; \$15,000; contract to Bohannon & Sanders and Campbell & Swann; both Covington; R. T. Goodwyn, Jr., Div. Engr., Athens Ga. (Lately noted inviting bids.)

Ga., Zebulon.—State Highway Dept., Atlanta, Ga.; build 3 bridges; H. B. Hoppendietzel Co., Contr., Georgia Casualty Bldg., Macon, Ga.

La., Dunn.—Vicksburg, Shreveport & Pacific Ry., L. A. Jones, Prest. and Gen. Mgr., New Orleans, La.; rebuild burned bridge.

La., Plaquemine.—Texas & Pacific Ry., E. F. Mitchell, Ch. Engr., Dallas, Tex.; build 135-ft. double-track bascule bridge span over Bayou Plaquemine; contract for sub-structure to Missouri Valley Bridge & Iron Co., Leavenworth, Kans.

Miss., Meridian.—Lauderdale County Road Comsn. Dist. No. 1, J. S. Buchanan; build concrete box culvert at Donald Ave.; \$777.77; A. P. Pool & Son, Contrs.

Mo., Greenfield.—State Highway Dept., Jefferson City, Mo.; build 16 culverts in Rock Prairie Township section; concrete bridge with two 20-ft. spans, 19 culverts and extensions to 4 old culverts in Polk Township section and 19 culverts and extensions to 10 old culverts in Center Township section.

Mo., Lamar.—Barton County Comms.; construct culverts and improve road; \$17,000; invite bids.

Mo., Potosi.—State Highway Dept., Jefferson City, Mo.; build culverts; 8.24 mi. Potosi-Steelville road.

Mo., St. Joseph.—City will build viaduct

and approaches over railroad tracks at Florence crossing; length 1400 ft.; W. K. Seitz, City Engr.

N. C., Pittsboro.—State Highway Comsn., Div. Office, Greensboro, N. C.; build bridges and culverts on Project 99-B; 241,780 lbs. reinforcing steel; bids until Dec. 17; W. S. Fallis, State Highway Engr., Raleigh. (See Machinery Wanted—Bridge Construction.)

S. C., Anderson.—Anderson County Highway Comsn.; build steel bridges; total cost \$1,560,000.

S. C., Orangeburg.—Orangeburg County Comms., Hugo S. Sims, Clk.; reconstruct existing bridges and construct 2 bridges; 19,482 lbs. steel reinforcement; 26,760 lbs. structural steel; bids until Dec. 7; changed date from Nov. 20; Ambrose Harwell, Div. Engr., Charleston, S. C. (See Machinery Wanted—Bridge Construction.)

Tex., Fort Worth.—Northern Texas Traction Co.; build footbridge over Tyler Creek on Vicksburg Blvd.

Tex., Fort Worth.—City, W. D. Davis, Mayor; build ornamental bridge at Sycamore Park and construct concrete culverts.

Tex., Fort Worth.—Tarrant County Commissioners, Hugh L. Small, County Judge, will build bridge over Mary's Creek on Highway No. 1; \$24,748.10; T. A. Griffin, Contr., Dallas, Tex.; R. V. Glenn, Conslt. Engr., Fort Worth, Tex.

Tex., Houston.—Houston & Shreveport R. R., H. M. Lull, Ch. Engr.; replace steel bridges over San Jacinto, Trinity, Neches and Sabine rivers; \$265,000; strengthen timber trestles; \$20,000. (Lately noted.)

Tex., Nacogdoches.—Nacogdoches County Comms., J. M. Marshall, County Judge, will build steel bridges; invite new bids; rejected previous bids; Lamar Acker, County Engr. (See Machinery Wanted—Bridge Construction.)

Tex., Nacogdoches.—Nacogdoches County Comms., J. M. Marshall, County Judge, will build steel span bridges on State Highway Nos. 21 and 35; bids until Dec. 13; Lamar Acker, County Engr. (See Machinery Wanted—Bridge Construction.)

Va., Hampton.—Elizabeth City Supvrs., H. H. Holt, Clk.; construct 6 concrete culvert bridges; lowest bidder, R. V. Richardson, at \$4950. (Lately noted inviting bids.)

Va., Norfolk.—City, Chas. E. Ashburner, Mgr.; reconstruct Campestella bridge across eastern branch of Elizabeth River to Berkley and South Norfolk; 140-ft. draw; \$100,000; will let contract.

Canning and Packing Plants.

Ala., Birmingham.—George A. Harmel & Co., 2327 First Ave.; repair packing-house; \$25,000.

Clayworking Plants.

Ky., Rockport—Tiles, etc.—E. O. Smith, 672 Cecil Ave., Louisville, Ky., will establish drain tile and brick plant; ordinary construction; cost from \$20,000 to \$25,000; install boilers, engines, combined tile and brick machines, kilns, conveyors, etc. (See Machinery Wanted—Boiler; Engine; Tile and Brick Machine; Dry Kilns; Conveyors.)

Tex., Vernon.—Bricks.—Chamber of Commerce; interested in establishing brick plant.

W. Va., Mannington—Pottery.—Bowers Pottery Co.; erect plant addition; increase capacity.

W. Va., Moundsville—Tile.—Suburban Brick Co., Marion W. Blair, Mgr.; improve plant; install equipment; mfr. hollow building tile.

Coal Mines and Coke Ovens.

Ky., Esco—Conner.—Wagner Fuel Co. will make plant extensions and lease additional holdings; erect tippie, miners' houses, etc.

Ky., Hazard.—Old House Coal Co. organized; Geo. Sutter, Prest.; V. H. Fuller, V.-P.; A. W. Gross, Secy.-Treas.; Joe Campbell, Mgr.; develop 400 acres; daily output 150 tons.

Ky., Kettle Island.—Durham-Straight Creek Coal Co. inceptd.; capital \$50,000; E. N. Ingram, Pineville, Ky.; C. M. Durham and F. L. Parrott, both of Campbellsville, Ky.

Ky., Lenut.—Columbus Mining Co. will erect coal tippie.

Ky., Louisville.—City, George W. Smith, Mayor; purchase coal mine; contemplated.

Ky., Madison.—Coil Coal Co. has plans to rebuild burned tippie.

Ky., Millard.—Elkhorn Coleman Coal Co. (previously noted inceptd., capital \$50,000) organized; J. H. McBrayer, Prest.-Mgr.; D. S. Underwood, V.-P.; D. B. Ramey, Secy.; develop 200 acres coal land. (See Machinery Wanted—Motors.)

Md., Mt. Savage.—Mount Savage Fuel Co. increased capital from \$15,000 to \$50,000.

Ky., Pineville.—See See Coal Co. inceptd.; capital \$150,000; R. I. Cawthorne, L. A. Collins, Lottie E. Cawthorne.

Ky., Pineville.—Crech-Duff Coal Co. inceptd.; capital \$35,000; W. J. Stone, Pineville; M. F. Crech, Four Mile, Ky.

Ky., Williamsburg.—Mahan-Ellison Coal Corp. chartered; capital \$200,000; T. B. Mahan, C. G. Ellison, A. M. Ellison.

Ky., Wheelwright.—Parks-Richmond Coal Co. inceptd.; capital \$10,000; O. O. and H. L. Parks, both Wheelwright; M. B. Richmond, Erwin, Pa.

Va., Appalachia.—DeLoale Coal Corp. chartered; C. H. Birchfield, Appalachia; John Goad, Norton, W. Va.; W. F. Roberts, Keokee, W. Va.; develop coal mines.

W. Va., Boomer.—Two-Seam Coal Co. organized, Winding Gulf, W. Va.; H. B. Turner, Prest.-Const. Engr.; A. U. Tieche, V.-P.; S. W. Shumate, Secy.-Treas.; I. B. Perkins, Mgr.; develop 75 acres coal land; daily output 200 tons. (Lately noted inceptd., capital \$25,000.)

W. Va., Boone County.—Coal Mountain Mining Co. inceptd.; capital \$200,000; Chris Mettagart, J. E. Gibbs, S. S. McNeer, all Huntington, W. Va.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

W. Va., Clarksburg.—E. F. Sangster, Fred Bierer, C. R. Newcomer and others; purchased coal properties in Harrison County for \$190,000; develop.

W. Va., Holly Junction.—Robinson Coal & Coke Co. (lately noted inceptd., capital \$50,000) organized; Sutton, W. Va.; L. H. Humbert, pres.; W. J. Robinson, V.-P.-Mgr.; J. M. Thomas, Secy.-Treas.; will erect ordinary construction building and develop coal lands; daily capacity 250 tons; install \$10,000 mining mchry. (See Machinery Wanted—Mining Machinery.)

W. Va., Marshall County.—McKeefrey Coal Co. inceptd.; capital \$300,000; L. T. Sanders, E. C. McHugh, S. E. Appleton, all Pittsburgh, Pa.

W. Va., Wheeling.—Glennova Coal Co. inceptd.; capital \$50,000; C. H. and E. J. Eberts; both Warwood, W. Va.; T. H. Johnson, Bellaire, O.

W. Va., Wilsondale.—Wilsondale Coal Co. inceptd.; capital \$10,000; William Elswick, Wilsondale; A. W. Wilson, Jr., Saltsburg, Pa.; J. H. Meek, Huntington, W. Va.

Concrete and Cement Plants.

Fla., Fort Lauderdale.—Cement Blocks.—John J. Kelley; establish plant; mfr. cement blocks, etc.

Ga., Portland—Portland Cement.—Empire Cement & Limestone Co., L. D. Oglesby, Gen. Mgr., Healy Bldg., Atlanta, Ga.; enlarge plant; has equipment; 1500-bbl. capacity. (Previously noted to enlarge plant.)

Okla., Tulsa.—Asphalt.—Polish-American Natural Asphalt Co. inceptd.; capital \$3,000,000; Joseph Parker, Tulsa; John F. Samhorski, Westfield, Mass.; John J. Haydasz, Hartford, Conn.

Va., Norfolk.—Cementile Roofing.—Cementile Roofing Corp. reorganized; A. LeB. Ribble, Pres.; H. D. Griffin, V.-P.; E. B. Griffin, Secy.; erect 38x100-ft. building; purchased site; \$6000.

Cotton Compresses and Gins.

Tex., Corpus Christi.—Moreman Gin Co.; repair gin; install mchry.; replacing for long staple cotton.

Tex., Leonard.—J. A. Craft Gin Co. inceptd.; capital \$20,000; J. A. Craft, W. C. Gibson, W. T. Manning.

Cottonseed-Oil Mills.

N. C., Nashville.—Farmers' Oil Mill Co.; rebuild burned plant; loss \$75,000.

Drainage Systems.

Ala., Vernon.—Lamar and Fayette Counties, Drainage Dist. No. 1; has organized drainage system and will reclaim 22,000 acres. (Super-sedes recent item.)

Ark., Marion.—Crittenden County Commrs., W. T. Castles, Chrmn. Drainage Dist. No. 6; construct 2500-ft. ditch; bids until Nov. 30.

Electric Plants.

Ga., Sandersville.—City; improve power-house and purchase fire equipment; sold \$40,000 bonds.

Ky., Harrodsburg.—City, J. G. Pulliam, Mayor; install electric-light and power plant; \$10,000 bonds voted; Pearse, Greeley & Hensen, Engr., Chicago. (Lately noted.)

Ky., Walton.—City; construct electric-light plant; voted \$10,000 bonds. Address The Mayor.

Miss., Macon.—City, J. J. Scott, Clk.; improve and repair light and water plants; voted \$25,000 bonds. (Lately noted to vote.)

Miss., Winona.—City, J. O. Staples, Mayor; purchase Winona light and water plant; voted \$60,000 bonds. (Lately noted to vote.)

Mo., Blairstown.—Town, D. E. Shepperd, Mgr.; install electric-light system; unit plant; for town 500 population; voted \$4900 bonds. (Lately noted to vote.)

Mo., Pineville.—Ozark Electric & Mfg. Co., C. D. Resler, Pres.; will erect electric-power house; cement construction; metal roofing; cement floor; invite bids.

Okla., Big Heart.—Big Heart Light & Power Co. (lately noted inceptd., capital \$50,000) organized; P. J. Minek in charge; erect 50x100-ft. galvanized steel building; install 12 mi. transmission system; develop 250 H. P.; construction by owner; J. C. Blankenship, Engr. (See Machinery Wanted—Electrical Equipment; Engine.)

Tex., Bangs.—John Sanders; install electric-light and power plant system.

Tex., Fort Worth.—Fort Worth Power & Light Co.; reported to enlarge plant.

W. Va., Lewisburg.—J. C. Boggs Motor & Light Co. inceptd.; capital \$50,000; J. C. Boggs, John A. Littlepage, both Lewisburg; W. A. Charleston, Hinton, W. Va.

Fertilizer Factories.

Fla., Ocala.—Oak Hurst Lime Co., capital \$20,000, inceptd.; John M. Meffert, Pres.; C. G. Fraser, V.-P. and Gen. Mgr.; Wellington H. Meffert, Secy.-Treas.

Md., Baltimore.—Levering Fertilizer Co. inceptd., Continental Bldg.; capital \$100,000; J. Gould Levering, W. G. Kanne, H. Webster Smith.

Flour, Feed and Meal Mills.

La., Berwick.—Oyster Products Co., Morgan City, La.; construct plant; mfr. chicken feed from oyster shells.

Mo., Kansas City.—Culverts, etc.—Galion Iron Works, 1323 W. 9th St.; leased 2-story building; 15,000 sq. ft. floor space; mfr. culverts, etc.

Tenn., Memphis.—Dixie Portland Flour Co. inceptd.; capital \$100,000; C. B. Stout, C. E. Currie, A. M. Ellsworth.

Tex., Leonard.—O. H. Black Grain Co. inceptd.; capital \$20,000; O. H. Black, J. A. Craft, C. T. Neal.

Foundry and Machine Plants.

Ala., Birmingham.—Ranges.—Arnold G. Glass; establish plant; mfr. gas ranges.

Ala., Langdale.—Machine Shop.—West Point Mfg. Co., West Point, Ga., will erect machine shop.

Fla., Fort Pierce.—Machine Shops.—Canal Construction Co.; erect machine shops to repair machinery used in connection with North St. Lucie River drainage contract.

Fla., Tampa.—Machine Tools.—O. Daniels Co.; erect plant; mfr. forgings and tools.

Ga., Rome.—Machine Shop.—Towers & Sullivan Mfg. Co.; rebuild machine shop; loss \$50,000 to \$60,000.

Ky., Louisville.—Stoves and Ranges.—O. K. Stove & Ranges Co., 1511 S. Brook St., has let contract to Morrison & Bennett, 1813 W. Oak St., for 1-story 60x200-ft. addition.

Ky., Louisville.—Electrical Machinery.—Louisville Electric Mfg. Co. inceptd.; capital \$75,000; C. E. Willey, Jas. E. Willey, Wm. Watts.

Md., Curtis Bay.—Ralinek & Braunbart; construct 16x39-ft. foundry building; has plans.

Miss., Bay St. Louis.—Banderet Oil Co. inceptd.; capital \$100,000; F. Banderet; will install oil-drilling mchry. and tools costing \$12,000.

Miss., Meridian.—Saws.—J. H. Miner Saw Co.; increased capital to \$150,000.

Mo., St. Louis.—Lubricating Equipment.—E. C. Meier Lubricating Co., Wichita, Kans.; erect plant; mfr. lubricating equipment.

Mo., St. Louis.—Pumping Machinery.—Clear Vision Pump Co., 110 E. Douglas Ave., Wichita, Kans.; erect 1-story 50x70-ft. plant; mfr. gasoline pumping machinery.

Ky., Owensboro.—Ditcher and Grader.—Owensboro Ditcher & Grader Co.; purchased adjoining building; increase capacity. (Previously noted increase capital to \$500,000.)

N. C., Charlotte.—Ice Machinery.—Southern Ice Machine Co. organized; 205 S. Poplar St.; F. A. Owens, Pres., Treas. and Mgr.; C. C. Harmon, V.-P.; T. J. Guthrie, Jr., Secy., with \$125,000 capital; has building; will erect plant later; install lathes, drills, grinders, etc. (See Machinery Wanted—Cranks shafts.)

N. C., Charlotte.—Vending Machines.—Jefferson Palmer, 207 S. Church St.; W. A. Anthony and Charles N. Leigh are organizing company with capital of \$50,000; will mfr. vending machines and slot-machine parts.

N. C., Fayetteville.—Plows.—Farmers Plow Co., capital \$100,000, inceptd. by W. T. Herndon, W. T. Herndon, Jr., and W. H. Marritt.

N. C., Raleigh.—State Highway Comsn., W. S. Falis, Highway Engr., will erect machine and repair shop costing \$75,000.

Tenn., Chattanooga.—Plows.—Chattanooga Plow Co., Carter and Main Sts.; erect 1 and 2-story 100x250-ft. factory; Turner Construction Co., Contr., 242 Madison Ave.

Va., Bristol.—Concrete Block Machinery.—Wood-Taylor Corp. chartered; H. Taylor, Pres.; J. L. Wood, Secy.-Treas.; purchased established plant; mfr. concrete block mchry.

Va., Portsmouth.—Foundry.—Portsmouth Metal & Foundry Corp.; rebuild main plant building burned at loss \$35,000.

Va., Roanoke.—Machine Shop.—F. N. Hayes Machine Co.; erect machine shop addition.

Va., Richmond.—Type.—John A. Belvin Estate, H. Seldon Taylor, Agt., 18 N. 9th St.; repair burned plant; \$20,000.

Va., Swords Creek.—Machine Shops.—Kennedy Coal Co.; rebuild burned machine shops.

Gas and Oil Enterprises.

Ala., Birmingham.—Old English-American Oil Co., capital \$1,000,000, inceptd. by J. F. Berry, Chas. D. Pantaze and W. L. Shumate, Jr.

Ala., Mobile.—Patterson Oil Co. inceptd.; capital \$15,000; H. W. Patterson.

Fla., Fort Pierce.—Oil Tank.—Canal Construction Co.; erect 15,000-gal. fuel-oil tank.

Ky., Ashland.—Big Chance Oil, Gas & Mining Co.; increased capital from \$25,000 to \$50,000.

Ky., Bowling Green.—Mecca Petroleum Co. inceptd.; capital \$10,000; W. R. Gardner, Elsa Crawford, W. B. Gaines.

Ky., Franklin.—Oil Refinery.—Western Kentucky Oil & Refining Co.; build oil refinery.

Ky., Scottsville.—Glencoe Oil Co.; increased capital from \$50,000 to \$80,000.

La., Lake Charles.—Humble Oil & Refining Co., Houston, Tex.; establish branch; will construct foundations for 3 storage tanks, erect 30x50-ft. warehouse, build driveway, garage, etc., and purchase storage tanks; total expenditure \$10,000; Knap & East, Contr.

Md., Baltimore.—Triangle Oil Corp. chartered; 433 Title Bldg.; capital \$2,000,000; Jas. G. Pugh, Howard T. Martin, Joseph P. Reynolds.

Md., Baltimore.—United Central Oil Corp. chartered; capital \$20,000,000; Harold T. von

Identon, Robt. C. Hall, Victor V. Vare; all 61 Broadway, New York; J. Bannister Hall, Jr., Agent, Calvert Bldg., Baltimore.

Md., Baltimore.—American Royalties Corp., Keyser Bldg.; increased capital from \$500,000 to \$1,000,000.

Md., Baltimore.—Gasholder.—Standard Oil Co.; construct 90x97-ft. fireproof gasholder; 350,000 ft. capacity; \$20,000; Stacey Mfg. Co., Contr., Elmwood, Cincinnati, O. (Lately noted.)

N. C., Greensboro.—Tar Heel Oil Co. inceptd with \$250,000 capital by J. M. Hunt, W. J. Jones and J. W. Long.

Okla., Henryetta.—Midland Oil & Gas Co., capital \$250,000, inceptd. by L. G. Cosper, E. O. Beemer and G. E. Beemer.

Tex., Beaumont.—Melba Oil Co. inceptd.; capital \$500; W. B. Drysdale, J. J. Goudchaux, John D. McCall.

Tex., Brownwood.—Central Texas Pipe Line Co. inceptd.; capital \$1,000,000; W. A. Letson, H. H. Barrett; both Brownwood; S. A. Boorstin, Tulsa, Okla.

Tex., Brownwood.—Brownwood Gas Co. inceptd.; capital \$350,000; W. A. Letson, H. H. Barrett; both Brownwood; S. A. Boorstin, Tulsa, Okla.

Tex., Comanche.—Comanche Gas Co. inceptd.; capital \$150,000; W. A. Letson, H. H. Barre; both Brownwood, Tex.; S. A. Boorstin, Tulsa, Okla.

Tex., Corpus Christi.—Refinery.—W. A. Chambers, Wichita, Kan.; develop oil land; erect refinery; reported.

Tex., De Leon.—De Leon Gas Co. inceptd.; capital \$80,000; W. A. Letson, H. H. Barrett; both Brownwood, Tex.; S. A. Boorstin, Tulsa, Okla.

Tex., Dublin.—Dublin Gas Co. inceptd.; capital \$100,000; W. A. Letson, H. H. Barrett; both Brownwood, Tex.; S. A. Boorstin, Tulsa, Okla.

Tex., Fort Worth.—Mid-Texas Petroleum Corp.; purchased site; establish plant; initial capacity 2000 bbls.; has machinery; equipment for rundown plant to be added later.

Tex., Houston.—Humble Oil & Refining Co.; rebuild burned storage tanks; loss \$200,000.

Tex., Houston.—United Petroleum Co.; increased capital from \$500,000 to \$1,000,000.

Tex., Mexia.—Humphreys Maxia Co. incorporated; capital \$2,500,000; John H. Sweat, John B. Means, F. Julius Fohs.

Tex., San Antonio.—Rogers Refining Co., E. C. Williams, Prest.; erect 3 steel storage tanks; Southern Structural Steel Co., Contr.; install mch. in lubricating oil department; purchased; daily capacity 1000 bbls. gasoline, 200 bbls. lubricating oil.

Tex., Stephenville.—Stephenville Gas Co. inceptd.; capital \$150,000; W. A. Letson, H. H. Barrett; both Brownwood, Tex.; S. A. Boorstin, Tulsa, Okla.

Hydro-Electric Plants.

Mo., Pineville.—Ozark Electric & Mfg. Co. organized; C. D. Resler, Prest.; P. L. Carnel, V.-P.; Al York, Secy.; Jasper Strong, Treas.; will develop hydro-electric plant; 200 H. P.; erect concrete building with 20x32-ft. generator room; install two 100 H. P. water wheels with direct connected vertical type generators. (See Machinery Wanted—Water Wheels; Electrical Equipment.)

N. C., Spruce Pine.—D. A. Adams, Old Fort, N. C.; build hydro-electric plant on Toe River.

Tex., Amarillo.—T. B. Slaughter; build hydro-electric plant at Palo Duro Canyon; cost \$1,000,000, including machinery.

Ice and Cold-Storage Plants.

D. C., Washington.—Washington Ice Mfg. Co. will build plant; steel construction; A. & B. Construction & Engineering Co., Contr., Baltimore, Md.

Fla., Palatka.—Stringfellow, Padgett & Co., Alston Halle, Mgr.; erect cold-storage plant; has plans.

Fla., Tampa.—City; install refrigerating outfit, compression system, etc.; Frick Co., Contr., Erie, Pa.

Ga., Columbus.—Constructing Quartermaster, Headquarters Bldg., Camp Benning; construct refrigeration plant; install equipment; bids until Dec. 20.

La., Lake Charles.—Calcasieu Mercantile Co., F. R. Yeatman, Gen. Mgr.; erect plant; install cold-storage equipment; \$25,000.

N. C., Charlotte.—Southern Ice Machine Co. inceptd.; capital \$125,000; C. C. and Paul V. Harmon, F. A. Owens.

N. C., Raleigh.—Raleigh Ice & Cold Storage Co., J. L. Dorminy, Prop.; purchased three established plants; install \$100,000 storage plant.

Tenn., Memphis.—Memphis Packing Corp.; establish cold-storage plant; capacity 300 carloads.

Tenn., Memphis.—Memphis Packing Corp.; erect 5-story-and-basement 100x150-ft. cold-storage building; Alexander Construction Co., Contr., Front St.

Tex., Fort Worth.—Lone Star Ice & Fuel Co., increased capital from \$60,000 to \$80,000.

Tex., Fort Worth.—Southern Ice & Cold Storage Co., 913 E. 9th St.; erect 114x32-ft. plant addition; \$5000.

Tex., Kingsville.—Kingsville Ice & Milling Co., R. Driscoll, Prest.; will double plant's capacity; has installed additional 15-ton ice-making machine and 100 H. P. gas engine. (Supersedes recent item.)

Land Developments.

Fla., Bradentown.—Myakka Farms Co. inceptd.; capital \$30,000; W. H. Tucker.

Fla., Clermont.—Clermont Fruit Land Co. organized; C. E. Baxter, Prest.; develop 2500 acres; clearing, fencing and planting citrus fruit. (Lately noted inceptd., capital \$10,000.)

Fla., Fruitville.—Sarasota Farms Co. organized; L. L. Richardson, Prest., Sarasota, Fla.; has 5000 acres; develop for sugar cane and cattle raising; \$50,000. Lately noted incorporated, capital \$100,000. (See Machinery Wanted—Engine.)

Fla., Haines City.—Haines City Improvement Co. inceptd.; capital \$100,000; Harry B. Johnson, A. H. Reagin; both Haines City; Isaac Van Horn, Boston, Mass.

Fla., Miami.—Miami Park Realty Co. inceptd.; capital \$60,000; Walter T. Porter, Prest.; I. W. Bowles, V.-P.; Fred P. Bowles, Secy.-Treas.

Fla., Miami.—Continental Producers' Corp. chartered; capital \$100,000; J. C. Gramling, E. C. and J. George.

Fla., Miami.—LeBlond & Orr Co. inceptd.; capital \$500,000; Richard K. LeBlond, Prest.; A. J. Cleary, V.-P.; Frank B. Shutts, Secy.-Treas.

Fla., Orlando.—Seminole Nurseries Co. organized; L. L. Long, Prest.; S. B. Ray, Secy.-Treas.; has 200 acres; develop in citrus groves and truck farm; \$50,000 to \$300,000 per acre. Lately noted inceptd., capital \$20,000. (See Machinery Wanted—Tractor; Stump-puller; Potato Digger; Ditching Machine, etc.)

Fla., St. Petersburg.—Victory Land Co., Chas. R. Hall, will improve Worthington estate; plans to install two 18-hole golf courses, construct roads, etc.

Md., Washington County.—Rosemont Orchard Co. organized; Martinsburg, W. Va.; capital \$50,000; C. A. Miller, Prest.; Wm. H. Morton, V.-P.; J. W. Lloyd, Secy.-Treas.; develop 20 acres.

Miss., Yazoo City.—Valley Development Co. inceptd.; capital \$10,000; A. B. Barbour, O. C. Ingram, G. M. Dunn.

N. C., Harding City.—Clarence D. Plyler, J. D. Johnson; both Misenheimer, N. C.; R. V. Scully, Gold Hill, N. C.; develop 2000 acres into town; erect buildings, factories, etc.

Tenn., Bristol.—Country Club Land Co., Joe A. Caldwell, Secy.-Treas.; develop 80 acres; improve for golf links, etc.

W. Va., Huntington.—Parsons Realty Co. inceptd. with \$100,000 capital by A. F. Parsons, John Bowman, Fred Klenzing.

Lumber Manufacturing.

Ga., Howell.—Valdosta Sawmill Co.; rebuild burned sawmill.

Ky., Lexington.—Soaper Planing Mill Co.; rebuild burned plant; loss \$100,000.

Miss., Grafton.—Walley & Wade Lumber Co. inceptd.; capital \$20,000; J. W. and C. H. Wade, R. L. Walley.

La., Monroe.—Holly Ridge Lumber Co.; rebuild burned hardwood mill; expend \$200,000 on improvements.

Miss., Longview.—Longview Lumber & Mfg. Co. inceptd.; capital \$10,000; Anna L. Phalin, Mrs. E. L. Anderson, R. H. Anderson.

N. C., Star.—Reynolds Lumber Co. inceptd. with \$25,000 capital by R. B. Reynolds, E. M. Brown and E. Brewer.

Okla., Tulsa.—Mid-Co. Lumber Co. inceptd.; capital \$15,000; C. M. and K. C. Burns, both Tulsa; Warren W. Wilson, Hot Springs, Ark.

Tex., Beaumont.—Southern Land & Lumber Co. (lately noted inceptd., capital \$100,000) organized; 205 Alexander Bldg.; J. L. Lyons, Prest.; P. E. Hammons, V.-P.; R. S. Barber, Secy.-Treas.; erect plant; ordinary mill construction; install saw and planing mill mch.; daily capacity 30,000 ft. (See Machinery Wanted—Sawmill Equipment; Drykln; Planing-mill Equipment.)

Tex., Houston.—Jones Lumber Co. inceptd.; capital \$300,000; John T. Jones, J. B. Fathing, F. J. Heyne.

Tex., Paducah.—Drummond-Crump Lumber Co.; increased capital from \$25,000 to \$50,000.

Va., Bristol.—Paxton Lumber Co. inceptd.; capital \$15,000.

Metal-Working Plants.

Ala., Birmingham.—Metal Products.—D. Souter, 647 St. Mary St., Baton Rouge, La.; erect plant; mfr. metal products; contemplated.

Ky., Louisville.—Hardware.—Belknap Hardware & Mfg. Co.; erect 190x190-ft. building; bids in December.

Ky., Pineville.—Stovepipes, etc.—Smith Mfg. Co. inceptd.; capital \$5000; W. E. Smith, Dan Faulkner, Will Durham.

Mo., St. Louis.—Register.—United States Register Co., 510 W. 5th St., will erect 40x105-ft. 3-story-and-basement building.

S. C., Florence.—Gas Burners, etc.—Thomas Brothers inceptd.; capital \$10,000; W. E. Thomas, H. H. Heard; mfr. hydro-carbon kerosene-oil gas burners, etc.

Va., Richmond.—Enamel.—Southern Crockery & Enamelware Co. inceptd.; capital \$15,000; Isadore S. Grow, Prest.; Robert H. Socoloff, Secy.-Treas.

W. Va., Wheeling.—Art Metal.—Wheeling Art Metal Mfg. Co. inceptd. with \$10,000 capital by T. J. Straight, W. F. Maury, E. J. Surgison; mfr. metal articles, etc.

Mining.

Ala., Montgomery—Sand and Gravel.—Roquemore Sand & Gravel Co. inctpd.; capital \$250,000; develop sand and gravel deposits; daily capacity 30 to 40 cars.

Ala., Montgomery—Sand and Gravel.—Chehaw Crystal Sand & Gravel Co. inctpd.; capital \$200,000; develop sand and gravel deposits at Chehaw.

Fla., Ocala—Lime.—Oak Hurst Lime Co., Box 478, organized; John M. Meffers, Pres.; C. G. Fraser, V.P.-Mgr.; Wellington H. Mcferr, Secy.-Treas., with \$20,000 capital; will develop 200 acres; daily output 30 tons lime; install mchy. (See Machinery Wanted—Mining Machinery; Kilns.)

Ga., Cartersville—Lime and Stone.—Ladd Lime & Stone Co.; install second unit; double plant's capacity.

Ga., Columbus—Sand and Gravel.—Jas. W. and Geo. Woodruff; enlarge sand-gravel plant; install additional equipment.

Ga., Crest—Graphite.—Taylor Graphite Co. organized; J. E. Taylor, Pres.-Treas.; Claud Warrill, V.P.; Cliff E. Taylor, Secy.-Mgr. and Constr. Engr.; develop 70 acres; install \$23,000 mining and concentrating equipment; purchased; present daily capacity 15 tons; later to install mchy. for 500-ton daily capacity. (Lately noted inctpd., capital \$100,000.)

Ky., Ashland.—Big Chance Oil, Gas & Mining Co.; increased capital from \$15,000 to \$100,000.

Tex., Bedia—Lignite.—Robert McDonald; develop holdings of lignite; build 3 mi. spur tract to International & Great Northern R. R.

Tex., Cass County—Iron.—Pratt Bros., Minneapolis, Minn.; leased iron-ore tract; develop; build drykiln and ore-crushing plant; repair railroad from mines to Longview, Tex.

Miscellaneous Construction.

Ala., Birmingham—Boiler, etc.—Texas Boiler and Sheet Iron Works inctpd., Wichita Falls, Tex., with \$50,000 capital; J. F. Hagan, W. L. Dalton, R. M. Lefingwell; will mfr. boilers and similar products.

Ala., Tuscaloosa—Heating Plant.—Alabama Home for Feeble-Minded, W. D. Partlow, Supt.; C. B. Verner, Chrmn. Bldg. Comm.; install heating plant. (See Machinery Wanted—Heating Plant.)

Fla., Jacksonville—Docks, etc.—City Commission, John S. Bond, Chrmn.; construct municipal docks and terminals; contemplated.

Fla., Mandarin—Dock.—Duval County Commissioners, Frank Brown, Clk., Room 101, Courthouse, Jacksonville, Fla.; construct shell dock; bids until Dec. 10. (See Machinery Wanted—Dock.)

Ala., Mobile—Coal Terminals.—United States River and Harbor Engineer let contract to J. A. Gilbert for driving test piles and setting up test borings for construction of coal terminal on Blakely's Island; \$400,000 available; city has purchased site. (Lately noted.)

Fla., Palmetto—Docks, etc.—City, W. E. Mann, Clk., will proceed with construction of municipal dock and piling protection; has rejected bids on \$25,000 bonds.

Okla., Ada—Swimming Pool.—City will build swimming pool in Glenwood Park to cost \$20,000 to \$30,000; Yates & Gallam, Contrs., Ada.

Okla., Ada—Swimming Pool.—City will construct 35x100-ft. swimming pool costing \$8500; Yates & Gallam, Contrs., Ada; Johnson & Benham, Const. Engr., Kansas City, Mo. (Lately noted.)

S. C., Charleston—Wharf.—City; repair Accommodation wharf. Address The Mayor.

S. C., Charleston—Terminals.—Charleston Port Terminals Corp. organized; Henry Schachte, Pres.; H. A. Molony, Treas. (Lately noted inctpd., capital \$100,000.)

Tex., Freeport—Levee.—City, E. C. King, Clerk; construct levee; voted \$133,000 bonds. (Lately noted to vote.)

Va., Norfolk—Dredging.—War Dept., U. S. Engr., Washington, D. C.; dredge Section 1 and 2, Appomattox River; W. H. French Dredging & Wrecking Co., Contr., Arcade Bldg.

Miscellaneous Enterprises.

Ala., Birmingham—Laboratories.—Southern Testing Laboratories inctpd.; capital \$25,000; J. F. Carle, Pres.-Treas.; William Makermison.

Ala., Tuscaloosa—Laundry.—Alabama Home for Feeble-Minded, W. D. Partlow, Supt.; erect laundry, kitchen and heating plant; fireproof construction; \$50,000; install sewer system; D. O. Whilden, Archt., Title Guarantee Bldg., Birmingham, Ala.; C. B. Verner, Chrmn. Bldg. Comm., Tuscaloosa. (Lately noted to erect buildings.)

Fla., Jacksonville—Engines.—J. Carrison & Co. inctpd.; 505 Dyal-Upchurch Bldg.; capital \$50,000; sales representative. (Supersedes recent item.)

Fla., Lakeland—Growers' Supplies.—Growers' Supply Co. inctpd.; capital \$10,000; P. F. Collins, M. H. Dorsett, W. H. Pritchett.

Fla., Miami—Building.—Home Builders' Corp. inctpd.; capital \$250,000; Hugh M. Anderson, J. M. Markley, R. B. Leonard.

Fla., Miami—Incinerator.—City; erect additional incinerator. Address The Mayor.

Fla., Pensacola—Transportation.—I. H. Aiken Transportation & Towing Co. inctpd.; capital \$250,000; Alexander G. Aiken, Pres.; Isaac H. Aiken, V.P.; Thomas W. Saltmarsh, Secy.-Treas.

Ga., Sandersville—Fire Equipment.—City; purchased fire equipment and improve powerhouse; sold \$40,000 bonds.

Ga., Waynesboro—Building Supplies.—Herrington & Braswell inctpd.; capital \$25,000; C. L. Herrington, A. M. Braswell, E. V. Heath.

Ky., Hazard—Printing.—Hazard Leader inctpd.; capital \$25,000; P. T. Wheeler, W. A. Stanfield, W. B. Roberts.

La., Lake Charles—Laundry.—G. W. Cline, owner of Lakeside Steam Laundry, contemplates erecting laundry; purchased site 100x300 feet.

Md., Baltimore—Engineering.—Oriole Specialty Corp. chartered, Belair Rd. and Southern Ave.; capital \$100,000; Thomas Heur, Chas. B. Mills, Harry L. Robinson.

Md., Baltimore—Lithographing.—Arthur Thompson & Co., 510 Water St.; purchased 220x150-ft. site; erect 1-story plant; daylight construction.

Md., Baltimore—Stevedore.—Monarch Stevedore Co. inctpd.; American Bldg.; \$50,000; James L. Watson, Ferdinand H. Butchorn, Thomas E. Halle.

Miss., Forest—Publishing.—Scott County Publishing Co. inctpd.; capital \$4000; J. B. Haman, Floyd Loper, Jeff Kent.

Miss., Laurel—Potato Curing.—Chamber of Commerce, Goode Montgomery, Pres.; interested in establishing sweet-potato storage-house and syrup plant.

N. C., Asheville—Distribution Plant.—Walter Haynes, H. L. Nettles, R. O. Crowell; interested in establishing \$30,000 milk-distribution plant.

N. C., Charlotte—Construction.—Goode Construction Co. inctpd. with \$125,000 capital by R. L. and A. L. Goode and W. T. Shore.

N. C., Mt. Airy—Laundry.—Granite City Laundry Co. inctpd.; capital \$25,000; M. S. Martin.

N. C., Winston-Salem—Printing.—Stewart-Brents Printing Co. (lately noted organized), W. Macy Brents, Secy.-Mgr., 215 W. 4th St.; has plant; mchy. purchased. (See Machinery Wanted—Cutter.)

Okla., Checotah—Hardware, etc.—J. O. Price Hardware & Implement Co. inctpd.; capital \$5000; J. O. and B. A. Price, A. J. Martin.

Okla., Muskogee—Cleaners and Dyers.—Spotless Cleaners & Dyers organized; E. W. Smart, Jr., Pres.; R. T. Price, V.P.; B. G. Sargent, Treas.-Mgr.; leased building; \$20,000 equipment purchased and installed. (Lately noted inctpd., capital \$20,000.)

Okla., Tulsa—Electrical.—Isko Electric Co. inctpd.; capital \$100,000; E. R. Kemp, R. H. Hardin, Edgar A. DeNeulas.

S. C., Charleston—Publishing.—Evening Post Publishing Co., T. R. Waring, Secy.-Treas.; increased capital from \$100,000 to \$200,000.

Tenn., Memphis—Publishing.—Students' Educational Publishing Co., capital \$75,000, incorporated by J. N. Manley, Pres.; E. D. Armstrong and W. E. Vaughan.

Tenn., Nashville—Electrical Supplies.—Tennessee Electrical Supply Co.; increased capital from \$15,000 to \$25,000.

Tex., Fort Worth—Supplies.—J. W. Sayles Supply Co. inctpd.; capital \$20,000; J. W. and Lucile Sayles, Gladys Barrett.

Tex., Temple—Laundry.—National Laundry, R. L. Barclay, Propr.; has building; install machinery; purchased. (Lately noted to build addition.)

Va., Appalachia—Printing.—Appalachia Printing Co. organized; C. D. Caruthers, Pres.; H. C. Wallace, V.P.; J. W. Cunter, Secy.-Treas.; H. C. Wallace, Mgr.; rented building; has installed printing mchy. costing probably \$5000.

Va., Rosslyn (P. O., F. R. D. No. 1, Rixey Station)—Greenhouse, etc.—C. F. Rixey; construct greenhouse and central steam heating plant; Frank Upman, Archt., Woodward Bldg., Washington, D. C.

W. Va., Keyser—Publishing.—Doyle Publishing Co. (lately noted inctpd., capital \$5000) organized; C. W. Seiver, Pres.; Geo. Sincell, V.P.; Harry Hodges, Secy.; P. V. Doyle, Treas.-Mgr.; has building; install mchy. (See Machinery Wanted—Folding Machinery; Paper.)

W. Va., Parkersburg—Publishing.—Baptist Banner Publishing Co., 213½ 4th St., inctpd. with \$25,000 capital by G. E. Bartlett, Pres.; J. R. Kemper, V.P.; Roscoe Murray, Secy.; Walter D. Sullivan, Treas.-Mgr.; continues publishing of religious magazine; mchy. installed. (See Machinery Wanted—Paper.)

Miscellaneous Factories.

Ala., Birmingham—Food Products.—Dixie Food Products Co. inctpd.; 1038 First Natl. Bank Bldg.; capital \$100,000; F. D. Lander, Pres.

Ala., Birmingham—Cereals.—United States Cereals Corp. chartered; capital \$100,000; Harry M. Woodruff, L. G. Griffin, Sam Gompers.

Ala., Montgomery—Paper Base, etc.—Cotton Mfg. Co.; establish plant to mfr. paper base from cottonseed hulls and linters, and hutting, guncotton, etc., from linters and waste cotton; acquired buildings; daily capacity 200 bales linters; initial cost \$100,000.

Ala., Selma—Mattresses.—Montgomery Mattress Factory, F. A. Holtzclaw, Representative, Montgomery, Ala.; establish branch plant.

Fla., Daytona—Fruitene.—Fruitene Mfg. Co. organized; Eugene C. Miller, Prest.; James W. Hallard, Secy.-Treas.; erect 62x110 ft. building; brick and cement construction; \$3000; increased capital from \$30,000 to \$100,000. (Previously noted inceptd., capital \$30,000.)

Fla., Jacksonville—Confectioners.—F. W. King & Co.; increased capital from \$50,000 to \$100,000.

Fla., Monticello—Syrup.—Monticello Syrup Co. will be organized to build \$50,000 syrup mill. Address care of Chamber of Commerce.

Fla., St. Petersburg—Bakery.—Bake-Rite System of Bakeries inceptd.; capital \$50,000; A. L. Reynolds, W. T. Baynard, L. W. Baynard.

Fla., West Palm Beach—Tents and Awnings. Thomas Tent & Awning Co., Miami, Fla.; establish branch factory.

Ga., Brunswick—Tannery.—Ocean Leather Co., Alfred Penizeh, Supt., Newark, N. J.; contemplates establishment of plant to mfr. leather from shark skins.

Ga., Jackson—Soap.—Georgia Soap Co., Locust Grove, Ga.; purchased building; equip to mfr. soap.

Ga., Wadley—Syrup.—Farmers' Gin Co. will rebuild syrup mill burned at loss of \$7000.

Ky., Louisville—Trousers.—National Clothing Mfg. Co.; increased capital from \$15,000 to \$25,000.

Ky., Louisville—Bathtubs, Traps, etc.—Standard Sanitary Mfg. Co., 325 W. Main St.; erect felting-room; \$20,000.

Ky., Louisville—Chemicals.—Henry R. King Co. inceptd.; capital \$20,000; Harry R. King, R. O. Nicholls, Grace E. King.

Ky., Pineville—Smith Mfg. Co. inceptd.; capital \$5000; W. E. Smith, Dan Faulkner, Will Durham.

La., Bastrop—Sulphate Pulp.—R. J. Fox, R. J. Cullen; erect 1-story sulphate pulp mill; Widmer Engineering Co., Engr. and Contr. (Supersedes recent item.)

Md., Baltimore—Licorice.—J. S. Young Co., 2701 Boston St.; increase capital from \$2,000,000 to \$2,500,000.

Md., Frederick—Ice Cream.—Nicodemus Ice Cream Co., capital \$100,000, inceptd. by Harry O. Nicodemus, Harry O. Nicodemus, Jr., and Eleanor C. Nicodemus.

Miss., Biloxi—Turpentine Still.—J. H. Johnson; erect turpentine still; replace burned plant.

Miss., Laurel—Syrup.—Chamber of Commerce, Goode Montgomery, Prest.; interested in establishing syrup factory and potato-storage house.

Mo., Kansas City—Corn Products.—North Kansas Products Refining Co., J. J. Merrill, Gen. Mgr., Chicago, Ill.; erect plant; Bedford Construction Co., Contr.

Mo., Maplewood—Paper Cans and Tubes.—St. Louis Paper Can & Tube Co., J. H. Kuechenmeister, Prest., 4400 Union Blvd., St. Louis, Mo.; erect plant; 94,000 sq. ft. steel and glass construction.

Mo., St. Louis—Glass.—Thatcher-Kerwin Glass Co., 517 Spruce St.; rebuild burned plant; loss \$25,000.

Mo., St. Louis—Belting.—Louisville Belting Co., W. R. LaVielle, Prest., 505 W. Main St., Louisville, Ky.; erect temporary plant; later to build permanent work; mfr. new and reclaimed belting.

Mo., St. Louis—Shoe Counters and Soles.—Proctor Counter Co., E. A. Proctor, Propr., 9th and Clinton Sts.; has building; mfr. shoe counters and soles. (Supersedes recent item.)

N. C., Asheville—Creamery.—Producers'

Creamery (lately noted inceptd., capital \$50,000), J. W. Haynes; erect \$30,000 building; fireproof; hollow tile and brick construction; install gravity system; daily capacity 1500 to 2000 gals. milk. (See Machinery Wanted—Creamery Equipment.)

N. C., Gastonia—Belting.—Gastonia Belting Repair Co. organized; Geo. A. Gray, Prest.; F. H. Robinson, V.-P.; Bismarck Capps, Secy.; Jas. A. Walker, Treas. and Gen. Mgr.; will continue present plant for repairing leather belting.

Okla., Oklahoma City—Films.—Western Film Corp. chartered; capital \$25,000; H. B. Hall, G. W. Baker, both Oklahoma City; H. G. Stettmund, Chandler, Okla.

Okla., Oklahoma City—Films.—Oklahoma Specialty Film Co. inceptd.; capital \$20,000; R. E. and L. C. Griffith; both Oklahoma City; P. K. Johnston, Dallas, Tex.

Tenn., Chattanooga—Burner Tips.—Tennessee Burner Co. increased capital from \$10,000 to \$35,000.

Tenn., Knoxville—Paint.—Pure Paint & Varnish Co. inceptd.; J. C. Trewitt, V.-P., Hotel Atkin; will build plant.

Tenn., Memphis—Tents, etc.—L. H. Hatley Mfg. Co.; purchased building; remodel; increase plant's capacity; mfr. tents, awnings, etc.

Tex., Amarillo—Paper.—H. M. Bosserman, Salina, Kan.; establish paper mill; contemplated.

Tex., Denton—Dairy Products.—Denton Dairy Products Co. inceptd.; capital \$25,000; C. F. Witherspoon, O. M. Curtis, W. E. Smoot.

Tex., Fort Worth—Denver Mfg. Co. inceptd.; capital \$30,000; O. G. Hurdleston, J. W. Haley, Ed. R. Bunch.

Tex., Houston—Bakery.—Barker Baking Co., Frank R. Flanagan, Local Mgr.; leased building; equip for bakery.

Tex., Houston—Bottling.—Eagle Bottling Works, P. C. Del Barto, Prest., 312 Scanlan Bldg.; erect \$25,000 plant; reinforced concrete; fireproof; install \$32,000 bottling mch.; purchased; daily capacity 1000 cases soda water; Houston Construction Co., Contr.; F. E. Zumwalt, Archt.; R. J. Cummings, Engr.; both Stewart Bldg. Lately noted to erect plant. (See Machinery Wanted—Wooden Cases.)

Tex., Lockhart—Knee Pads, etc.—Sears Mfg. Co., J. M. Sears, Mgr. (lately noted to rebuild burned plant), leased 40x130-ft. building; install power riveting, cutting, sewing and fabric stripping machines; \$3000; mfr. cotton picker knee pads and harness from worn automobile tires. (See Machinery Wanted—Fabric Stripping Machines; Cutters.)

Tex., McKinney.—Brown-Mann-Nash Co. inceptd.; capital \$20,000; W. E. and M. L. Brown, H. J. Cohn.

Va., Norfolk—Lard Refinery.—Wynne Lard & Provision Co., Law Bldg.; erect refinery; 2 stories; 53x53 ft.; brick, steel and reinforced concrete; Peebles & Ferguson, Archts., Law Bldg.; Johnson Construction Co., Contr., Law Bldg. (Lately noted.)

Va., Richmond—Paper.—Standard Paper Mfg. Co.; remodel and enlarge plant; install equipment; \$25,000.

Va., Richmond—Bakery.—Southern Biscuit Works Co.; increased capital from \$100,000 to \$300,000.

Va., Salem—Bottles.—Salem Glass Co.; B. P. Shelor, Secy.-Treas.; increased capital from \$125,000 to \$225,000; remodel plant and double capacity for mfr. of flint, amber and green glass bottles.

Va., Suffolk—Peanuts.—Pond Bros. Peanut Co., C. B. Pond, Prest.; will rebuild next year. (Lately noted to rebuild burned plant.)

Motor Cars, Garages, Tires, Etc.

Ala., Birmingham—Filling Station.—Wolford Oil Co.; erect \$2000 filling station; brick and steel.

D. C., Washington—Automobiles.—Automobile Service & Machine Co. inceptd.; capital \$10,000; Michael S. Ricci, Jacob H. Levy, Harvey Given.

D. C., Washington—Garage.—Mr. Green; erect addition to garage and showroom at 14th and V Sts. N. W.; 2 to 4 stories; Milburn, Heister & Co., Archts., Union Savings Bank Bldg.; R. P. Whitty Co., Contr., Union Trust Bldg.

Fla., Orlando—Garage.—Cook & Rowland, De Land, Fla.; erect \$15,000 garage; 60x174 ft.; ordinary construction; will sublet contract; install gas and oil tanks for filling station; F. M. Miller, Archt., McElroy Bldg., Orlando, Fla. (Supersedes recent item.)

Fla., St. Petersburg—Garage.—I. B. Burnett; erect \$5000 garage.

Fla., Tampa—Automobile Manufacturing.—Southern Automobile Mfg. Co., Memphis, Tenn.; erect factory; mfr. automobiles and trucks; proposed.

Fla., Tampa—Automobiles.—Tampa Motor Co. will incorporate; capital \$15,000; R. W. Shackleford, Prest.; V. T. Covington, Gen. Mgr.; W. J. Lancaster, Secy.

Ky., Lexington—Automobiles.—Central Kentucky Motors Corp. chartered; capital \$80,000; Jack H. Dunn, A. C. Satalard, E. Robinson Webb.

Ky., Owensboro—Service Station.—Standard Oil Co., J. R. Laswell, Agt.; erect service station.

Ky., Williamsburg—Garage.—Tourists' Garage inceptd.; capital \$2500; C. A., E. S. and L. S. Moss.

Md., Baltimore—Garage.—S. Rudolph Vincent; erect \$60,000 garage; E. G. Blanke, Archt., 835 Equitable Bldg.

Md., Baltimore—Service Station.—Standard Oil Co., Pier 2 Pratt St.; erect \$10,000 service station; 1 story; 46x20 ft.; brick.

Md., Baltimore—Garage.—Marino Restivo, Gwynn Oak and Liberty Heights Ave.; erect garage; 1 story; 125x40 ft.; brick; John Noratell, Contr.; Harry Gross, Archt. (Lately noted.)

Mo., Springfield—Automobiles.—Carbide Motor Co. inceptd.

Mo., St. Louis—Garage.—Kingsburg Garage Co., Wm. C. Hays, 943 Century Bldg.; erect garage; 1 story; 113x415 ft.; brick; semi-fireproof; N. B. Howard, Archt., 943 Century Bldg.

N. C., Charlotte—Automobile Manufacturing.—Wizard Automobile Co. organized; F. W. Edwards, Sr., Prest.; increased capital from \$1,000,000 to \$2,000,000; erect factory buildings in units of 100x400 ft.; steel on concrete foundations; completed one building; purchased \$200,000 mch.; contemplated; yearly output 10,000 automobiles.

N. C., Shelby—Garage.—Charles L. Eskridge; remodel garage; replace with pressed-brick front with stone trimmings; tile floors with marble wainscoting; offices, storeroom and restroom.

Tenn., Chattanooga—Automobiles.—Marshall Automobile Co. inceptd.; capital \$75,000; J. V. Marshall, Rees Marshall, Thomas Donaldson, James Newman.

Tenn., Erwin—Automobiles.—H. R. Parrott Motor Co. inceptd.; capital \$10,000; H. R. Parrott, T. F. Jones, W. S. Lewis.

Tenn., Nashville—Automobiles.—Marshall Automobile Co. inceptd.; capital \$75,000; Reese Marshall, J. V. Marshall, Thomas Donaldson. Tenn., Nashville—Automobile Repairs.—Au-

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tomobile Renewal Co.; increase capital from \$12,000 to \$30,000.

Tex., Brady—Automobiles.—Brady Automobile Co.; increased capital from \$10,000 to \$50,000.

Tex., Dalhart—Tires.—Bukoviny Rubber Works inceptd.; capital \$20,000; erect plant; mf're. tires and accessories.

Tex., Galveston—Motors.—American Hydro-Motors Co. inceptd., capital \$1,000,000; Frank D. Crowder, Galveston, Tex.; Lorenzo G. Warfield, James M. Lockname; both Washington, D. C.

Tex., Grand Prairie—Garage.—Grand Prairie Garage; rebuild burned garage; loss \$100,000.

Tex., Houston—Automobiles.—Sherwood Automobile Market, W. C. Roberts, Prest., Prairie & San Jacinto Sts.; will rebuild burned building; loss \$100,000 to \$125,000.

Tex., Newcastle—Southwest Trail Garage; rebuild burned building.

Va., Norfolk—Garage.—Lowenberg-Goodman Corp., Columbus Bldg.; erect garages; 1 story; H. W. Roberts, Contr.

Tex., Wichita Falls—Filling Station.—H. C. Ferriman; erect filling station; 2 stories; 4x20 ft.; brick; Kennerly & Stiegemeier, Architects, Title Guarantee Bldg., St. Louis, Mo.

Va., Richmond—Garage.—C. G. Mercer and R. C. Sutton, 218 N. 9th St.; erect garage; 40x50x150 ft.; \$40,000.

Railway Shops, Terminals, Roundhouses, Etc.

Md., Hagerstown.—Pennsylvania Railroad Co., A. C. Shand, Ch. Engr., Broad Street Station, Philadelphia, Pa.; plans new terminal buildings and repair shops for Cumberland Valley division.

N. C., Wilmington.—Atlantic Coast Line R. R., J. E. Willoughby, Ch. Engr.; rebuild repair shop; loss \$15,000 to \$25,000.

Okla., Cushing.—Atchison, Topeka & Santa Fe Ry., F. M. Bisbee, Ch. Engr., Amarillo, Tex.; construct coaling station and cinder conveyors.

Okla., Frey.—Atchison, Topeka & Santa Fe Ry., F. M. Bisbee, Ch. Engr., Amarillo, Tex.; construct coaling station.

Okla., Guthrie.—Atchison, Topeka & Santa Fe Ry., F. M. Bisbee, Ch. Engr., Amarillo, Tex.; construct coaling station and cinder conveyors.

Okla., Lehigh.—Atchison, Topeka & Santa Fe Ry., F. M. Bisbee, Ch. Engr., Amarillo, Tex.; construct coaling station.

Okla., Shawnee.—Atchison, Topeka & Santa Fe Ry., F. M. Bisbee, Ch. Engr., Amarillo, Tex.; construct coaling station and cinder conveyors.

Okla., Skedee.—Atchison, Topeka & Santa Fe Ry., F. M. Bisbee, Ch. Engr., Amarillo, Tex.; construct coaling station.

Road and Street Construction.

Ala., Anniston.—Calhoun County Comms.; improve roads in Piedmont section.

Ala., Birmingham.—City will construct asphalt concrete, brick gutter and sidewalk paving under improvement ordinance No. 23-D; also construct concrete gutters, asphalt and bitulithic paving under improvement ordinance No. 40D; bids opened; Julian Kendrick, City Engr.

Ala., Heflin.—Cleburne County Comms.; improve roads.

Ala., Ashland.—State Highway Dept., Montgomery, Ala.; construct Ashland-Goodwater highway; gravel; \$363,634; proposed.

Ala., Brewton.—State Highway Dept., Montgomery, Ala.; construct road from Brewton to Sardis Church; gravel; \$357,706; proposed.

Ala., Mobile.—City, Jos. J. Heiter, Street Commr.; resurface Texas St. from Conception to Broad, hard-surface Warren and other streets.

Ala., Tuscaloosa.—State Highway Dept., Montgomery, Ala.; construct 25.22 mi. road from city limits of Northport to New Lexington; gravel; \$545,545; proposed.

Ark., Fort Smith.—City; construct concrete pavement in alley between Rogers and Garrison Aves.; lowest bidder Phoenix Construction Co., Walter H. Evans, City Engr.

Fla., Bronson.—Levy County Comms. will construct 22 mi. hard-surfaced road from Alachua county line to Marion county line; graded road 24 ft. wide; waterbound macadam; voted bonds; will invite bids. (See Machinery Wanted—Road Construction.)

Fla., Jacksonville.—Duval County Comms., Frank Brown, Clk.; stump, grub and clear 2 mi. right of way 30 ft. wide on road from St. Augustine road to Julington Creek; bids opened Dec. 1. (See Machinery Wanted—Road Construction.)

Fla., Key West.—City, Board Public Works; pave streets and construct sidewalks; voted \$150,000 bonds.

Fla., St. Petersburg.—City, G. B. Shepard, Director of Finance; grade, curb with granite curb and pave with vitrified brick, resetting curb on Second Ave.; paving 40 ft. wide; bids until Dec. 6. (See Machinery Wanted—Paving.)

Fla., Tampa.—Hillsborough County Comms.; pave 3½ mi. Coronet road; Davis & Webb, Contrs.

Fla., West Palm Beach.—Palm Beach County Comms.; extend Okeechobee Rd.; issue \$600,000 bonds.

Fla., West Palm Beach.—City, Karl Riddle, City Mgr., will construct several miles of streets; rock; \$115,000 available. (Lately noted selling bonds.)

Ga., Chatsworth.—Murray County Supvrs. Roads and Revenues, J. M. Campbell, Chrmn.; construct 6.6 mi. Dalton-Chatsworth road; Federal-aid Project 178; 18,000 yds. topsoil; 8 concrete culverts; \$75,000 available; Hagedorn Construction Co., Contr., Commerce, Ga.; A. A. Simonton, Div. Engr., Rome, Ga. (Lately noted inviting bids.)

Ga., Greensboro.—Greene County Comms. Roads and Revenues; improve Eatonton-Greensboro road, part of Federal-Aid Project 67, Contract 2; bids until Dec. 1; R. T. Goodwyn, Div. Engr., Athens, Ga.

Ga., Jackson.—State Highway Dept., Atlanta, Ga.; construct link of Newnan-Griffin highway; sand-clay.

Ga., Zebulon.—State Highway Dept., Atlanta, Ga.; construct 9 mi. sand-clay road; H. P. Hoppendietzel Co., Contr., Georgia Casualty Bldg., Macon, Ga.

Ky., Owensboro.—City, Mayor Calhoun; improve streets; issue \$40,000 bonds; proposed.

Ky., Paducah.—City, F. W. Katterjohn, Mayor; pave 4th, 5th, Tennessee, Washington, 11th and other streets; construct sidewalks on 7th, Harrison, 2d, Broad and 4th Sts.; \$40,000; improve driveway to Union Station.

La., Arcadia.—Bienville Parish Police Jury, D. M. White, Prest., Sparta, La.; construct 14 mi. gravel road, Ward C.; bids until Dec. 20; Geo. R. Wilson, Engr., Arcadia, La. (See Machinery Wanted—Road Construction.)

La., New Orleans.—Highway Dept., Board State Engrs., 332 Maison Blanche Annex; construct 5.91 mi. New Orleans-Hammond highway, Section A-1; 15.19 mi. New Orleans-Hammond highway, Section C, and 9.24 mi. New

Orleans-Mississippi highway, Section B; bids until Jan. 3; Duncan Buie, State Highway Engr. (See Machinery Wanted—Road Construction.)

La., Pineville.—Town, C. G. David, Secy.; pave Ragan Ave.; gravel; gutters and curbs; bids until Dec. 7; W. H. Sylvester, Town Engr. (See Machinery Wanted—Paving.)

La., Shreveport.—City; pave Claiborne Ave. Address The Mayor.

Md., La Plata.—State Roads Comsn., 601 Garrett Bldg., Baltimore; construct 3.93 mi. gravel roadway; 15 ft.; low bidder G. B. Mullin Co., 1296 Upshur St. N. W., Washington, D. C.; R. W. Owens, Engr., Hyattsville, Md. (Lately noted inviting bids.)

Miss., Biloxi.—City Comsn. will pave 9¼ mi. streets; will invite new bids Dec. 21; rejected previous bids; sold \$350,000 bonds.

Miss., Macon.—City, J. J. Scott, Clk.; pave streets; voted \$18,000 bonds. (Lately noted to vote.)

Miss., Meridian.—Good Roads Comsn., Kewanee-Toomsaba Special Road Dist.; construct Kewanee-Toomsaba road; 33,000 cu. yds. earth excavation; bids until Dec. 7. (See Machinery Wanted—Road Construction.)

Mo., California.—State Highway Dept., Jefferson City, Mo.; construct 4.26 mi. road in State-Aid Project S-2014; bids until Dec. 2.

Mo., Galena.—State Highway Dept., Jefferson City, Mo.; construct 7.21 mi. Springfield-Hollister road; 19,373 sq. yds. gravel surfacing; Federal-Aid Project 134.

Mo., Greenfield.—State Highway Dept., Jefferson City, Mo.; construct 7.2 mi. Lamar-Springfield road in Rock Prairie Township section; 42,488 sq. yds. macadam surfacing; culverts; 7.7 mi. Lamar-Springfield road in Polk Township section; bridge, culverts; 9.6 mi. Lamar-Springfield road in Center Township section; 23,440 sq. yds. gravel surfacing; culverts; all Federal-Aid Project 159.

Mo., Farmington.—State Highway Dept., Jefferson City, Mo.; construct 3.25 mi. State road from Madison county line toward Libertyville; State-Aid Project S-2013; 2,866 sq. yds. gravel pavement; bids until Dec. 10.

Mo., Lamar.—Barton County Comms.; improve road and construct culverts; \$17,000; invite bids.

Mo., Marshfield.—State Highway Dept., Jefferson City, Mo.; grade 18 mi. road from Northview through Marshfield; culverts; H. P. Moberly, Div. Engr., Springfield, Mo.

Mo., Nevada.—State Highway Dept., Jefferson City, Mo.; construct 2.06 mi. State road from Horton; State-Aid Project S-2012; bids until Dec. 7.

Mo., Potosi.—State Highway Dept., Jefferson City, Mo.; construct 8.24 mi. Potosi-Steelville road between Walton and Breton townships; culverts; Federal-Aid Project 160.

Mo., Shelbyville.—State Highway Dept., Jefferson City, Mo.; construct 1.1 mi. State road from Hunnewell; State-Aid Project S-2017; bids until Dec. 3.

Mo., Unionville.—State Highway Dept., Jefferson City, Mo.; construct 1.75 mi. East and West road; 15,840 sq. yds. brick pavement; Federal-Aid Project 164.

N. C., Albemarle.—State Highway Comsn., Raleigh, N. C.; construct 4.919 mi. topsoil road; \$58,000; Federal-Aid Project 74B; C. S. Currier, Res. Engr.

N. C., Belmont.—Town; improve streets; issue \$50,000 bonds. Address The Mayor.

N. C., Jefferson.—Road.—Ashe County Comms.; sold \$300,000 of 6 per cent semi-annual 21-30-yr. serial bonds, dated Dec. 1, to Prudden & Co. and Sidney Spitzer & Co.; both Toledo, O. (Lately noted inviting bids.)

N. C., Troy.—State Highway Comsn., Raleigh, N. C.; construct 15.53 mi. topsoil road; \$169,000; Federal-aid Project 80-A; C. S. Currier, Res. Engr.

N. C., Troy.—State Highway Comsn., Div. office, Greensboro, N. C.; improve 3.72 mi. road between Mt. Gilead and Wadeville; Federal-aid Project 33; 8750 cu. yds. top-soil surfacing; bids until Dec. 17; W. S. Fallis, State Highway Engr., Raleigh. (See Machinery Wanted—Road Construction.)

Okla., Antlers.—State Highway Dept., Oklahoma City; construct 5 mi. gravel road; \$62,186; John W. Rooks, Contr., McAlester, Okla. (Lately noted.)

Okla., Ardmore.—State Highway Dept., Oklahoma City, Okla.; construct 15.97 mi. hard-surfaced road from Healdton to Long Grove; invite bids; Robert C. Terrell, State Highway Engr., Oklahoma City.

Okla., Dewey.—City; grade and pave 15½ blocks streets, 24 and 30 ft. wide; 16,130 sq. yds. concrete; 10,300 lin. ft. concrete curbing; invite bids in spring; Wood & Witten, Engrs., Tulsa, Okla.

Okla., Eufaula.—State Highway Dept., Oklahoma City, Okla.; construct 21 mi. Jefferson highway; gravel; \$250,000 available; invite bids; Robert C. Terrell, State Highway Engr., Oklahoma City. (Lately noted.)

Okla., Hartshorne.—City; construct 15,000 sq. yds. concrete paving in Dist. No. 3; V. V. Long & Co., Engrs., Colcord Bldg., Oklahoma City.

Okla., Idabel.—State Highway Dept., Oklahoma City; construct 12 mi. road; \$152,139; S. B. McCartney, Contr., Vallant, Okla. (Lately noted.)

Okla., Newkirk.—State Highway Dept., Oklahoma City; awarded paving contracts: Ben Flynn, Newkirk, \$52,617, 1½ mi. concrete road; M. A. Swatek & Co., Oklahoma City, \$61,613, .79 mi. brick road. (Lately noted.)

Okla., Oklahoma City.—State Highway Department, Oklahoma City; construct 14 mi. paved road; invite bids; Robt. C. Terrell, State Highway Engr., Oklahoma City.

Okla., Weatherford.—City; pave 13 blocks; V. V. Long & Co., Engrs., Colcord Bldg., Oklahoma City.

Okla., Wilburton.—State Highway Dept., Oklahoma City; construct 2½ mi. gravel road; \$42,350; J. S. Terry, Contr., Poteau, Okla. (Lately noted.)

S. C., Allendale.—South Carolina Highway Dept., Columbia, S. C.; construct 10.16 mi. sand-clay road from Fairfax to Bamberg county.

S. C., Anderson.—Anderson County Highway Comsn.; construct road from Honea Path to Belton; invite bids.

S. C., Greenwood.—City, A. M. D. Singleton, Treas. will construct streets and sewers; issue \$200,000 bonds.

S. C., Orangeburg.—Orangeburg County Comms., Hugo S. Sims, Clk.; construct 12.722 mi. Columbia-Savannah highway; 30,403 cu. yds. sand-clay surfacing; bridges; bids until Dec. 7; changed date from Nov. 20; Ambrose Harwell, Div. Engr., Charleston, S. C. (See Machinery Wanted—Road Construction.)

S. C., St. George.—State Highway Comsn., Columbia, S. C.; topsoil 15 mi. Dorchester-Reevesville road; bids opened next year; Chas. H. Moorefield, State Highway Engr., Columbia. (See Machinery Wanted—Road Construction.)

Tenn., Knoxville.—City Comsn.; pave Thompson place, White Ave., Patterson, Payne and Central Sts. from Scott Ave. to Southern Ry., etc.; \$126,000; Murray Construction Co., Contr. (Lately noted inviting bids.)

Tenn., Shelbyville.—Shelbyville, Flat Creek

& Dean Turnpike Co. inctpd.; capital \$4000; W. L. Hix, E. E. Hart, E. L. Ward.

Tex., Ballinger.—Runnels County Comms.; construct Ballinger-Abilene road; 12,291.7 cu. yds. gravel surfacing; \$42,000 available; Ed Shelton, Contr., Temple, Tex.; U. Stephens, Engr., Ballinger. (Lately noted inviting bids.)

Tex., Brenham.—Washington County Comms.; construct roads; issue \$1,500,000 bonds.

Tex., Canadian.—Hemphill County Comms., W. D. Fisher, County Judge, will construct 14.44 mi. sand-clay road on Highway No. 4; bids opened Dec. 13; Hess & Skinner, County Engrs., Southwestern Life Bldg., Dallas, Tex. Supersedes recent item. (See Machinery Wanted—Road Construction.)

Tex., Center.—Shelby County Comms., J. T. King, County Judge, will construct 35.5 mi. Highway No. 22; bids opened; T. H. Dillon, County Engr. (Lately noted.)

Tex., Childress.—Childress County Comms., M. J. Hathaway, Judge; construct 10 mi. graded road; clay, sand and gravel; \$70,000 available; bids until Dec. 13; Hess & Skinner, Engrs., Dallas, Tex. Supersedes recent item. (See Machinery Wanted—Road Construction.)

Tex., Crowell.—Foard County Comms., G. L. Burk, Judge; construct roads on Highway No. 4; construction by county; H. Noland, Engr. (Lately noted.)

Tex., Daingerfield.—Morris County Comms., E. Shieve, County Judge, will construct 16.60 mi. Highway No. 1-A; low bidders are Smith Bros., Crockett, Tex., and C. W. Burgess, Dallas, Tex.; McLendon & Purnell, County Engrs., Daingerfield. (Lately noted.)

Tex., Dallas.—City, Frank W. Wozencraft, Mayor; awarded \$86,323.49 paving contracts; Uvalde Paving Co., at \$76,383.87, pave Thomas St.; Texas Bitulithic Co., at \$9939.62, pave Dickason St.

Tex., El Paso.—El Paso County Comms.; surface 13 mi. highway between Fabens and east line of county; \$300,000; surface 5 mi. road to County Line; invite bids; awarded contract to Lee Moor Construction Co. for grading right of way at \$50,000. (Lately noted.)

Tex., El Paso.—El Paso County Comms., E. B. McClintock, County Judge, will surface 12.6 mi. Taben road, section State Highway No. 1; later to be paved with concrete; bids until Dec. 13; L. A. White, County Engr. Supersedes recent item. (See Machinery Wanted—Road Construction.)

Tex., Eldorado.—Schleicher County Commissioners, C. A. Womack, County Judge, will construct 7.43 mi. Highway No. 4 from Eldorado to Tom Green County line; \$165,842.52. (Supersedes recent item.)

Tex., Fort Worth.—City, W. D. Davis, Mayor; oil-treat roads in city parks, construct 7 mi. additional boulevards, 1¼ mi. of 16-ft. gravel driveway in Sycamore Park, 1 mi. of 12-ft. roadway in Trinity Park and 5 mi. gravel road.

Tex., Fort Davis.—Jefferson Davis County Comms., J. W. Merrill, County Judge, will construct 7.2 mi. Highway No. 1; State-aid Project No. 142; \$24,000; Herbert Schroeter, County Engr.

Tex., Galveston.—Galveston County Comms.; reconstruct causeway; issue \$220,000 warrants.

Tex., Georgetown.—Williamson County Comms., F. D. Love, County Judge; construct 60 mi. hard-surfaced road; \$900,000 available; W. Dozier, Contr., Taylor, Tex.; R. A. Nichols, Engr., Georgetown, Tex. (Previously noted.)

Tex., Groesbeck.—Limestone County Commissioners, J. E. Bradley, County Judge, will construct roads in Dist. No. 11; vote Dec. 11 on \$75,000 bonds; Fred P. Holt, County Engr.

Tex., Groveton.—Trinity County Comms., will grade, surface and drain 7.216 mi. Highway 1; 2774 cu. yds. gravel surfacing; A. L. White, Engr., Van Horn, Tex.

Tex., Hillsboro.—Hill County Comms., R. T. Burns, County Judge, will construct 10 mi. gravel-surfaced road in Irene Special Road Dist. No. 8; \$64,270; Brown & Root, Contrs., Taylor, Tex.; Hill County to furnish 12,000 cu. yds. gravel to cost \$24,000; Bryant & Huffman, County Engrs., Littlefield Bldg., Austin, Tex. Lately noted inviting bids. (See Machinery Wanted—Building Material.)

Tex., Linden.—Cass County Comms., Henry D. Nelson, County Judge, will construct roads in Dist. No. 7; vote Dec. 14 on \$35,000 bonds; Hess & Skinner, County Engrs., Southwestern Life Bldg., Dallas, Tex.

Tex., Linden.—Cass County Comms., Henry D. Nelson, County Judge, will construct 11 mi. Highway No. 1; \$80,664.87; Smith Bros., Contrs., Crockett, Tex.; Cass County will furnish gravel surfacing to cost \$26,437.89; Hess & Skinner, Engrs., Southwestern Life Bldg., Dallas, Tex. (Lately noted.)

Tex., Lockhart.—City; repair streets and public square; tarvia. Address The Mayor.

Tex., Lufkin.—Angelina County Comms., E. B. Robb, County Judge, will construct 8 mi. gravel-surfaced road on Highway No. 35; Lamar Acker, County Engr., Nacogdoches, Tex.

Tex., Montague.—Montague County Commissioners, W. T. Russell, County Judge, will construct 3.92 mi. Meridian Highway No. 2-A; \$49,964.98; T. Rutledge Hill, County Engr., Bowie, Tex.

Tex., Nacogdoches.—Nacogdoches County Comms., J. M. Marshall, County Judge, awarded \$249,158.02 road contracts; H. F. Bland, San Augustine, Tex., 9.73 mi. Highway No. 35, at \$76,838.60, and 23.17 mi. Highway No. 21, at \$712,319.42; Lamar Acker, County Engr.

Tex., Nacogdoches.—Nacogdoches County Comms., J. M. Marshall, County Judge, will construct 19.58 mi. Garrison road from Nacogdoches to Shelby County; \$138,607.22; H. F. Bland, Contr., San Augustine, Tex.; Lamar Acker, County Engr., Nacogdoches. (Lately noted inviting bids.)

Tex., Olton.—Lamb County Comms., R. C. Hopping, County Judge, will construct 26.06 mi. Highway No. 4; \$44,285.73; J. F. Hamer, Contr., Fort Worth, Tex.; C. L. Hasie Engineering Co., Engr. (Lately noted inviting bids.)

Tex., Richmond.—Fort Bend County Comms., C. H. Chernosky, Judge; construct 3 mi. dirt road with concrete drainage structures; 20,000 cu. yds. excavation; bids opened; Gurley & Gurley, County Engrs.

Tex., San Angelo.—Tom Green County Commissioners, Chas. T. Paul, County Judge, will construct 26.5 mi. Highway No. 4; State-aid Project No. 141; J. E. Beavers, County Engr.

Tex., San Marcos.—Hays County Comms.; construct 17.05 mi. Austin-Fredericksburg road; crushed rock; \$60,000; construction by county. (Supersedes recent item.)

Tex., Stephenville.—John Tarleton College; construct concrete sidewalks and curbing; plan concrete sidewalks and curbs extending from business section of city to college; \$7000 available.

Tex., Waco.—Missouri, Kansas & Texas Ry., Frank Ringer, Ch. Engr., Dallas, Tex.; pave Jackson St. and yard around passenger depot.

Tex., Waco.—McLennan County Comms., J. P. Alexander, County Judge, will construct 5.16 mi. Highway No. 37; surfaced with gravel; \$26,291.41; Mantan Hannah, County Engr.

Va., Fairfax.—Lee Highway Assn.; construct and improve roads; issued \$500,000 bonds.

Va., Fort Meyer Heights.—Arlington County Comms.; construct 1.705 mi. concrete road; Corson & Gruman, Contrs., 61 Rhode Island Ave. N. E., Washington, D. C.; Mr. Brady, Engr., Washington, D. C.

Va., Galax.—City; construct roads; issue \$300,000 bonds. Address The Mayor.

Va., Richmond.—City; awarded \$3927 paving contracts as follows: A. L. Phillips, \$2782, grade Chamberlayne Ave.; A. W. Maynard, \$1145, excavating and concrete paving approaches to Chamberlayne Ave.

Va., Richmond.—State Highway Comsn., G. P. Coleman, Commr., 116 S. 3d St.; pave streets; Corsau & Greeman, Contrs., 61 Rhode Island Ave. N. E., Washington, D. C.

Va., Richmond.—Director Public Works, Chas. E. Bolling, Director; grade, gravel, lay granolithic curb and gutter on Virginia St.; pave Linden and Morris Sts.; asphaltic concrete, bitulithic willite on 5-in. concrete base and concrete; bids opened Dec. 6.

W. Va., Marlinton.—Pocahontas County Comms.; construct 4 mi. Class A road from Warwick to Dunmore.

W. Va., Princeton.—Mercer County Comms., L. G. Bowling, Clk., will grade 3 mi. road from Bluestone river near Kegley to Spanishburg, 26 ft. wide; Federal Aid Project 44; bids until Dec. 15.

W. Va., St. Albans.—City, L. A. Edwards, Clk.; rejected bids for paving 5th St.; will not invite new bids this year; J. M. Oliver, City Engr., Huntington, W. Va. (Lately noted inviting bids.)

Sewer Construction.

Ala., Tuscaloosa.—Alabama Home of Feeble-Minded, W. D. Partlow, Supt.; C. B. Verner, Chrmn. Bldg. Comm.; install sewer system. (See Machinery Wanted—Sewer System.)

Fla., Jacksonville.—City Comsn., John S. Bond, Chrmn.; construct sewers; contemplated.

Fla., Key West.—Oversea Hotel, Johnson Bros., Props.; install sewer system; \$5500; South Florida Contracting & Engineering Co., Contr.

Fla., Tampa.—City; construct storm sewer along Spanish Creek; Harwell & Owens, Contrs.

La., Lafayette.—City, Robert L. Mouton, Mayor; construct 6600 ft. creosoted wood storm sewers; bids opened.

Mo., Kansas City.—City; construct sewer, \$16,185; Kinler Construction Co., Contr., 3426 Michigan Ave.

N. C., Maiden.—City; let contract to Boyd, Higgins & Goforth, Charlotte, N. C., to construct sewer and water system costing \$115,000; 25,000 ft. 6 to 10-in. vitrified pipe, 20,000 ft. 1½ to 6-in. water mains, 28 fire hydrants, 3 sewage-disposal plants, one 100,000-gal. stand pipe, 2 deep wells, pumping equipment, etc.; Carolina Engineering Co., Engr., Wilmington, N. C.

Okla., Miami.—City, J. B. Gibbs, Clk.; construct septic tank and sanitary sewer extension; \$168,000; Hughes Engineering Co., Engr., Tulsa, Okla.; James & Shoe, Contrs., Miami. (Lately noted to construct disposal plant.)

S. C., Greenwood.—City, A. M. D. Singleton, Treas., will construct sewers and streets; issue \$200,000 bonds.

S. C., Greenwood.—Town, A. McD. Singleton, Clk.; construct sewer system; issued \$100,000 bonds.

Tex., Abilene.—City; construct sewers; issued \$100,000 bonds. Address The Mayor.

Tex., Wichita Falls.—City, W. D. Cline, Mayor; construct sanitary sewers; sold \$700,000 bonds.

Telephone Systems.

Ala., Jasper.—Western Union Telegraph Co.; rebuild burned plant.

Ala., Jasper.—Southern Bell Telephone Co.; rebuild burned plant.

Fla., Miami.—South Atlantic Telephone & Telegraph Co., F. B. Shuttles, Prest., 315 17th St.; erect 80x130 ft. fireproof building; \$160,000; install automatic telephone equipment, \$300,000; purchased; E. R. Wolfe Construction Co., Contr., Miami; P. Thornton Marrye, Archt.; A. J. Huie, Const. Engr.; both Atlanta, Ga. (Supersedes recent item.)

Ga., Tybee Island.—Navy Dept., Bureau Yards and Docks, Washington, D. C.; erect 2 or more radio buildings at Fort Screven; Spec. 4275.

Tenn., Harrisburg.—Harrisburg Telephone Co. Inceptd.; W. A. Dixon, J. MacElder, L. L. Robertson.

Textile Mills.

N. C., Florence City.—Cotton.—Florence Mills; increased capital from \$200,000 to \$500,000.

S. C., Belton.—Towels.—Blair Mills, E. B. Rice, Treas., will improve plant; ordered 2016 spindles, with complementary cards, slubbers and speeders, for which floor space has been provided; contemplates installing small bleachery.

Tenn., Pinewood.—Knit Goods.—Pinewood Knitting Mills Inceptd.; capital \$100,000; H. A. Grigsby, J. V. McDonough, F. C. Farmer.

Tex., Corsicana.—Automobile Tire Fabric.—Navarro Mfg. Co. Inceptd.; capital \$150,000; W. M. Clarkson, Jr., J. S. Cain, Bush Woford; establish plant; mfr. fabric used in mfr. automobile tires.

Va., Harrisonburg.—Silk.—Stehli Silk Corp., C. W. Barlow, Secy.; 104 E. 25th St., New York; proceeding with erection of silk mill; has completed 2-story 78x100-ft. mushroom type concrete construction building; install spinning, twisting and winding equipment; silk to be wound on spools and shipped to central plant at Lancaster, Pa., for dyeing and weaving; building erected under supervision of Fred Messer & Son of Lancaster, Pa.; Betts & Boice, Contrs. for concrete work.

Water-Works.

Fla., Key West.—City; construct water-works; preliminary plans prepared. Address The Mayor.

Ga., Atlanta.—City, W. E. Dunn, Chrmn. Water Board; improve water-works; issue \$3,000,000 bonds; proposed; Norcross & Kreis, Engrs.

Ga., Decatur.—Town, H. H. Ehle, Clk.; construct water-works; issue \$50,000 bonds.

Ky., Harrodsburg.—City, J. G. Pulliam, Mayor; extend water-works; Pearce, Greeley & Hensen, Engrs., Chicago; voted \$90,000 bonds. (Lately noted.)

Md., Baltimore.—City, William E. Megraw, Water Engr.; install 20-in. water mains in Decatur and Nicholson Sts., 16-in. mains in Woodall St. to American Sugar Refinery's plant at Locust Point; \$20,000.

Miss., Macon.—City, J. J. Scott, Clk.; improve and repair water and light plants; voted \$25,000 bonds. (Lately noted to vote.)

Miss., Union.—City; construct water-works system; vote on bonds. Address The Mayor.

Miss., Winona.—City, J. O. Staples, Mayor; purchase Winona water and light plant; voted \$60,000 bonds. (Lately noted to vote.)

N. C., Burlington.—City; extend water-works; \$25,000. Address The Mayor.

N. C., Maiden.—City; let contract to Boyd, Higgins & Goforth, Inc., Charlotte, N. C., to

construct water and sewer system costing \$115,000; 25,000 ft. 6 to 10-in. vitrified pipe, 20,000 ft. 1½ to 6-in. water mains, 28 fire hydrants, 3 sewage-disposal plants, one 100,000-gal. standpipe, 2 deep wells, pumping equipment, etc.; Carolina Engineering Co., Engr., Wilmington, N. C.

N. C., Raleigh.—City, J. B. Bray, Commr. Public Works; extend waterworks; issue \$50,000 bonds.

Okla., Enid.—City, R. T. Williams, Clerk; install 6 motor-driven deep-well pumps; Black & Veatch, Engrs., 701 Mutual Bldg., Kansas City, Mo.

Tenn., Rogersville.—City; erect pumping station; J. N. Ambler, Const. Engr., 2221 Monument Ave., Richmond; Virginia Machinery & Well Co., Contr., 1319 E. Main St., Richmond.

Okla., Sapulpa.—City will construct water-works consisting of new supply system, dam, reservoir, filters, basins, force main, distributing reservoirs, etc.; Holway Engineering Co., Engr., 230 Lynch Bldg., Tulsa, Okla.

Okla., Tulsa.—City; erect pumphouse; brick construction; \$10,000. Address The Mayor.

Tex., Dallas.—City Comsn.; construct filtration plant at White Rock reservoir; \$400,000.

Tex., Port Arthur.—Port Arthur Water Improvement Dist. Comms.; will convey water from Sabine River; install intake, including open ditch for 16½ mi. on Sabine River, 19 mi. above Orange, near Kansas City Southern R. R. crossing; install 2 pumping plants, settling basin and cement aqueduct from Port Neches; voted \$2,000,000 bonds; Nagle, Witt-Rollins Engineering Co., Engr., Dallas, Tex. (Lately noted to vote.)

Tex., San Benito.—City; expend \$150,000 on pumping plant; mchy. purchased; increase plant's capacity. Address The Mayor.

Tex., Yorktown.—City; construct 100-ft. water tank and tower; concrete construction; \$15,000; Mr. Schoenfeld, Contr., San Antonio, Tex.

Va., Norfolk.—City, C. E. Ashburner, Mgr.; plans additional improvements to water-works; issue \$4,000,000 bonds.

Woodworking Plants.

Ala., Birmingham.—Boxes.—Four-One Box Co., Carroll T. Sherman, Prest.-Mgr., Houston, Tex.; has building; will install machinery for mfr. wire-bound boxes; daily output 2000.

Ala., Dothan.—Boxes.—Dothan Milling & Mfg. Co., J. C. Haynes, Mgr.; erect 40x80-ft. building with platforms; ordinary frame structure; bids until Dec. 15. (Lately noted to rebuild burned lumber sheds.)

Fla., St. Petersburg.—Toys.—H. & A. Wood Products Co., William E. Hooker, Prest., 724 S. 2d Ave.; has leased fireproof building; will install \$10,000 woodworking mchy. for mfr. of durable toys and kindergarten furniture. Lately noted organized, capital \$50,000. (See Machinery Wanted—Woodworking Machinery; Glue.)

Ala., Tuscaloosa.—Shuttles.—H. D. Dean, Cairo, Ga.; leased site; erect mill; install machinery; purchased; manufacture cotton mill shuttles.

Fla., Jacksonville.—Novelties.—Richardson & Moore Mfg. Co. Inceptd.; capital \$50,000; J. A. Moore, T. F. Richardson, Chas. K. Franklin.

Ky., Hazard.—Furniture.—Ideal Furniture Co.; increased capital from \$15,000 to \$35,000.

La., Lafayette.—Sash, Doors, etc.—Lafayette Lumber Co. organized; P. F. Voorhies, Prest.; C. E. Hebert, V.-P.; R. J. Voorhies, Secy.-Treas.; has building; install \$20,000 mchy.; purchased; mfr. sash, doors, blinds, etc. (Lately noted inceptd., capital \$25,000.)

La., Rayville.—Staves, etc.—Chess & Wy-

mond; rebuild burned hardwood mill, 4 dry-kilns.

N. C., Beard — Gum Rollers. — Natl'nal Roller Co., 307 Pearl St., New York; purchased site; erect plant; mfr. gum rollers for mining operations.

N. C., Elizabeth City—Veneer.—Foreman-Derrickson Veneer Co.; increased capital to \$100,000.

Tex., Beaumont—Phonograph.—Neches Phonograph Co. has increased capital from \$5000 to \$25,000.

Tex., Fort Worth—Planos.—Conklin-Grimes Piano Co. Incptd.; capital \$50,000; E. J. Conkling, B. A. Grimes, A. E. Thomas.

Tex., Wichita Falls—Caskets.—Chamber of Commerce, Hubert Harrison, Secy.; interested in establishing \$300,000 casket manufacturing plant.

Va., New Canton—Woodworking.—New Canton Mills Co.; establish wood and lumber-working mill addition; install 36x48 circular saw, matcher, etc. (See Machinery Wanted—Woodworking Machinery.)

Va., Norfolk—Veneer.—Norfolk Veneer Co., Wilson White, Prest.; erect plant; 1 story; 80x230 ft. and 90x320 ft.; W. O. Beasley, Contr., 566 Hanover Ave. (Previously noted to rebuild burned plant.)

Fire Damage.

Ala., Anniston.—Union Hotel, owned by Mrs. A. Steinberg; loss \$5000.

Ala., Atmore. — Crescent Theater; Hall & Northrup's store; Lamont & Sewell's building; Clark & Trumbull's barber shop; Atmore Bakery; loss \$45,000.

Ala., Birmingham.—Dr. E. P. Hogan's residence, 2212 Ridge Park Ave.; loss \$5000.

Ala., Flat Rock.—Flat Rock School dormitory; Rev. S. L. Dobbs, member Board of Directors.

Ala., Jasper. — Cranford Mercantile Co., Southern Bell Telephone Co. and Western Union Telegraph Co.'s buildings; First National Bank; Southern Hotel; J. M. Hayes Co., J. A. Ballenger Co., People's Grocery Co., Southern Express Co., A. B. Legg Undertaking Co., American Compounding Co., O'Rear Fire & Coal Co.'s buildings, Cranford Warehouse, R. A. Shears' restaurant, W. C. Davis, J. M. Pennington, R. L. Blanton, Dr. R. W. Wood, Dr. B. H. Williams and H. F. Cranford's offices; loss \$100,000.

Ala., Tuscaloosa.—P. W. Key's store; loss \$10,000.

Ark., Bearden.—T. B. Gatling & Co.'s store, loss \$25,000 to \$30,000; J. T. Riggs' building, \$15,000 to \$20,000; Mitchell Mercantile Co.'s store, \$20,000 to \$25,000; W. B. Sloan & Co.'s building, \$20,000 to \$35,000.

Fla., Daytona.—Mrs. D. E. Graham's residence, Loomis and Palmetto Aves.; loss \$7500.

Ky., Cadiz.—Trigg County Courthouse; loss \$50,000 (address Trigg County Commrs.); Turner-Wilkinson Co.'s department store \$60,000; Trigg County Farmers' Bank, \$10,000; Cadiz Hotel, \$10,000; J. M. Hunter's garage, owned by J. P. Hart, \$5000; Denny P. Smith's building, \$6000; L. O. Hendricks & Son's grocery store, \$5000; Parrent & Sons' produce-house, \$2000; T. T. & C. B. Cunningham's livery stable, \$3000; Will Holloway's building, \$3000; T. F. McBride's residence, \$2500.

Fla., Jacksonville.—Newport Hotel, Broad and Adams Sts.

Fla., Leesburg.—J. B. Langford's residence, 6th and O'Brien Sts.

Ga., Arnoldsville.—White & Henson's store-house.

Ga., Howell.—Valdosta Sawmill Co.'s plant.

Ga., Rome.—Towers & Sullivan Mfg. Co.'s machine shop; loss \$50,000 to \$60,000.

Ga., Wadley.—Farmers' Gin Co.'s syrup mill; loss \$7000.

Ga., Waynesboro.—W. P. Lassiter's residence; occupied by Fred Lively.

Ky., Clay. — Blackburn, Herron & Co.'s stores; loss \$20,000.

Ky., Hickman.—Charles Moore's grocery store.

Ky., Lexington.—Soaper Planing Mill Co.'s plant; loss \$100,000.

Ky., Richmond. — Richmond Lumber Co.'s yard; loss \$80,000; B. E. Belue's store; loss \$20,000.

La., Dunn.—Vicksburg, Shreveport & Pacific Rwy.'s bridge; L. A. Jones, Prest. and Gen. Mgr., New Orleans, La.

La., Monroe. — Holly Ridge Lumber Co.'s hardwood mill.

Md., Cumberland. — Thomas B. Lashley's residence, Allegany Grove.

Miss., Laurel.—Ernest Gilmore's pressing club; L. M. Walters, Zack Gelger and J. N. Andrews' stores; loss \$15,000.

Miss., Meridian.—A. H. George & Co.'s warehouse, 5th St. and 23rd Ave.; loss \$30,000 to \$40,000.

Mo., St. Louis.—Thatcher-Kerwin Glass Co.'s plant; loss \$25,000.

Mo., St. Louis.—Demetrius Jannopoulos's residence, near St. Louis; loss, \$30,000.

N. C., Greensboro.—Henry Weber's residence, Monroeton.

N. C., Marshall.—R. N. Caton's residence; occupied by Theo. Ebbs.

N. C., Middlesex.—Middlesex Supply Co.'s store; loss \$100,000.

N. C., Nashville.—Farmers' Oil Mill Co.; loss \$75,000.

N. C., Spencer.—J. A. Siceloff's store; loss \$5000.

Okla., McAlester.—City Hall and Jail; loss, \$16,000. Address The Mayor.

S. C., Greenville.—Wards 16 and 17, U. S. Public Health Service Hospital, Camp Sevier.

S. C., Owings. — Bank of Owings; R. O. Hunt and Johnson Hunter's stores.

Tenn., Horn Springs.—J. W. Eastes' residence, near Horn Springs; loss \$6000.

Tex., Colorado.—Texas & Pacific R. R.'s freight depot; loss \$50,000 to \$75,000; E. F. Mitchell, Ch. Engr., Dallas, Tex.

Tex., Houston.—Sherwood Automobile Market's building; loss \$100,000 to \$125,000; W. C. Roberts, Prest.

Tex., Houston.—Jacob Levy estate's Regina and Levy apartment building, \$125,000; Nella Esperson's frame rooming-house at 812 Travis St., conducted by Mrs. W. H. Caton, \$10,000.

Tex., Cistern.—M. Gosch & Co.'s grocery store.

Tex., Dublin.—Dr. W. W. Snyder's residence; loss \$11,000 to \$14,000.

Tex., Eddy.—H. A. Dunlay's residence.

Tex., Fort Worth.—Earl K. Morey's residence, Western Ave., Arlington Heights.

Tex., Fort Worth. — Dr. Harry Grafke, Warren V. Galbreath, Earl K. Morey, Ben Wofford, Clarence Hicks and Jas. E. Earl's residences.

Tex., Grand Prairie.—Grand Prairie Garage's building; loss \$100,000.

Tex., Houston.—Humble Oil & Refining Co.'s warehouse, Carr and Conti Sts.

Tex., Houston. — Bonner Oil Co.'s warehouse; loss \$8000.

Tex., Houston.—Humble Oil & Refining Co.'s 24 storage tanks; loss \$200,000.

Tex., Knippa.—Sol West's barn, near Knippa; loss \$5000.

Tex., Newcastle.—Southwest Trail Garage's building, owned by G. A. Terrell.

Tex., Normanna. — J. R. Scott's barn on Medio ranch, 2 mi. from Normanna; loss \$5000.

Tex., Pittsburg.—G. L. Merrell's residence, Jefferson St.; loss \$7000.

Tex., Port Arthur.—Port Arthur Canal & Dock Co.'s sheds.

Tex., Sulphur Springs.—Woodall Hotel. Address The Proprietor.

Va., Boyce. — Mrs. Jennie E. Copenhaver's residence.

Va., Buckroe Beach.—Nellie E. Carr's cottage occupied by Frank E. Musselman.

Va., Gordonsville.—Col. Alexander Cameron estate's residence, Cameron Lodge.

Va., Oak Grove.—Mrs. John Fears' residence, near Oak Grove.

Va., Farnham.—High School; loss \$6000. Address School Board.

Va., Portsmouth. — Portsmouth Metal & Foundry Corp.'s main plant building; loss \$35,000.

BUILDING NEWS

BUILDINGS PROPOSED

Apartment-Houses.

Fla., Tampa.—Abbey & Co.; erect \$7500 concrete apartment-house, 167 Parker St.

Mo., Kansas City.—C. R. Baum, 1022 Wyandotte St.; erect \$6000 apartment-house, 4140 Holmes St.; 3 suites; 3 stories and basement; 20x42 ft.; stucco; composition roof; plans and construction by owner.

Va., Norfolk.—W. Herbert Simpson, Board of Trade Bldg.; preparing plans for \$70,000 apartment building; brick and limestone; 4 stories.

Fla., St. Petersburg.—Jas. D. Hay; will erect \$35,000 apartment-house; lately noted; 2 stories; 12 suites; 34.4x91 ft.; Denison interlocking tile; Reynolds shingle roof; hardwood and pine floors; steam or hot water heat; city lights; hollow fireproof tile; W. H. Carr, Archt.; construction by owner. (See Machinery Wanted—Building Material; Tile; Brick; Flooring.)

Okla., Muskogee.—Manhattan Construction

Co.; erect \$75,000 apartment-house, N. 6th St.; fireproof; reinforced concrete, brick and stone; tile terrace; 100-ft. front; 3 stories; 34 apartments; oak and tile floors; garage.

Association and Fraternal.

Ark., Little Rock. — Scottish Rite Masons, Chas. E. Rosenbaum, Chrmn., will remodel building, 100x140 ft., and erect building, 200x140 ft.; \$700,000; fireproof; built-up asphalt roof; concrete, hardwood, tile and marble floors; vacuum steam heat; electric lights; hydro-electric elevators; hollow fireproof tile; interior tile; metal doors; vaults; wire glass; ventilators; Mann & Stern, Archts.; plans completed in about 5 weeks. (Previously noted.)

Ga., Augusta.—Building Committee of Central Y. M. C. A. will erect \$300,000 building; 4 stories and basement; reinforced concrete construction veneered with limestone and face brick; electric lights; hollow fireproof tile; ornamental terra cotta; interior tile; metal

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doors; rolling partitions; wire glass; concrete floors; vault lights; ventilators; steel and sash trim; 95 dormitory rooms, gymnasium, hand ball courts, lounging rooms, etc.; Murphy & Dana, Archts., 331 Madison Ave., New York. Contrs. invited to address Scroggs & Ewing, Asso. Archts., 610-611 Lamar Bldg., Augusta, for plans and specifications which will be ready about Dec. 15. (Lately noted.)

La., Lake Charles.—Salvation Army, W. T. Gregory, Capt.; plans to erect 3-story brick building; chapel, library, medical clinic, rest-rooms, etc.

Mo., Springfield.—Abou Bon Adhom Shrine, L. E. Walton, Chrmn.; erect mosque, St. Louis and Kimbrough Sts.; seat 600; club-rooms, etc.; Hecklenlively & Mark, Archts.

N. C., Asheville.—Swannanoa Lodge No. 56 I. O. O. F., 75½ Broadway; plans to erect building.

Tenn., Chattanooga.—Alhambra Temple, Mystic Shrine, will erect \$100,000 mosque, Market St., and expend \$20,000 to \$25,000 to convert brick warehouse into clubhouse; W. H. Sears, C. T. Jones and R. H. Hunt authorized to prepare plans.

Tex., Dallas.—Scottish Rite Masons, South Harwood and Cabell Sts., will erect \$500,000 to \$750,000 cathedral; 3 stories; H. M. Greene, Archt., North Texas Bldg. (Previously noted.)

Va., Phoebus.—Loyal Order of Moose, care Wm. Clark; erect \$50,000 building; 3 stories; 28x105 ft.; brick.

W. Va., Point Pleasant.—Masonic Temple Assn. Inceptd.; capital \$30,000; Benjamin Franklin, W. W. Riley, Jr., Geo. J. Somerville and others, incorporators.

Bank and Office.

Ga., Atlanta.—C. F. Palmer and others will erect \$250,000 office building, Marietta and Forsyth Sts.; 4 stories; 100x105 ft.; steel and concrete; 150 offices; 2 elevators; Burge, Stevens & Conklin, Archts., Atlanta Trust Bldg.

Mo., St. Louis.—Liberty Central Trust Co., J. L. Johnston, Prest., will erect building, Broadway and Olive St.

Mo., St. Louis.—Central National Bank, C. J. Cella, Prest., 7th and Olive Sts.; expend \$20,000 to alter and remodel building; Chas. Deitering, Archt., Central Natl. Bank Bldg.

Okl., Tulsa.—Dan Hunt; erect 10-story office and theater building, Main St. between 5th and 6th Sts.; \$400,000; first 2 floors for theater; expend \$75,000 for decorations; fireproof; steel and reinforced concrete; construction by owner.

Tenn., Elizabethton.—First National Bank; remodel and enlarge building; 2 stories; brick; \$35,000; Thos. B. Brown, Archt., Hotel Bristol, Bristol.

Tenn., Knoxville.—Mr. Bostwick, F. A. Blackburn & Co., Burwell Bldg.; erect office building; 2 or 4 stories; brick; Frank Millburn, Archt., Union Savings Bank Bldg., Washington, D. C.

Tex., Hamilton.—Hamilton National Bank will expend \$12,000 to \$15,000 to rebuild structure; 50x120 ft.; stone; hollow fireproof tile; metal ceilings; ornamental terra-cotta; interior tile; vaults; concrete floors; Roy E. Lane, Archt., Waco. (See Machinery Wanted Bank Fixtures.)

Va., Norfolk.—Harvey S. Abrames, Arcade Bldg.; preparing plans for altering and erecting addition to office building; brick; \$10,000.

Va., Richmond.—Federal Reserve Bank; erect 6-story building, 8th and Franklin Sts.; about \$500,000; limestone and concrete; steel frame; lot 36x120 ft.

W. Va., Masontown.—Bank of Masontown, Earl Dixon, Cash.; erect \$30,000 bank and

office building; 2 stories and basement; 28x 60 ft.; brick and stone; Carl Reger, Archt., Morgantown.

W. Va., Welch.—Wright Motor Co.; erect office and apartment building; 6 stories and basement; 40x128 ft.; reinforced concrete; \$150,000; Jones & Abernathy, Archts., Dispatch Annex Bldg., Columbus, O.

Churches.

Ala., Birmingham.—Union Baptist Church, Lipscomb, Rev. S. B. Hughes, Pastor; erect building.

Ala., Birmingham.—Episcopal Church, East Lake; erect building, 77th St. and 2d Ave. North; P. S. Mewhinney, Archt., Woodward Bldg.

Ala., Birmingham.—Christ English Lutheran Church, Rev. W. P. Chine, Jr., Pastor, 1411 N. 20th St.; erect \$40,000 building; brick or stone; steam heat; contract let about Feb. 1. (Lately noted.)

Ala., Whistler.—Bethany Baptist Church; erect 3-room Sunday-school addition. Address The Pastor.

Fla., Daytona.—First Baptist Church, Rev. H. S. Rightmore, Pastor and Chrmn. Bldg. Comm.; erect \$70,000 church and Sunday-school building; 85x95 ft.; steel, concrete and stucco; probably tile roof; concrete and wood floors; steam heat; electric lights, hollow fireproof tile; ornamental terra-cotta; interior tile; rolling partitions; J. J. Baldwin, Archt., Anderson, S. C.

Fla., Plant City.—First Baptist Church, J. E. Knight, Chrmn. Bldg. Comm.; bids received until Jan. 3 at office of Wells & Sons Co. to erect building; plans and specifications at same office; H. L. Cain, Archt., Richmond, Va. (Previously noted.)

Ga., Savannah.—African Baptist Church, Rev. T. J. Goodall, Pastor; expend \$23,000 to remodel and erect addition to building.

Ky., Escob.—Wagner Fuel Co. will erect church. (See Dwellings.)

Ky., Frankfort.—Christian Church, W. G. Furr, Chrmn. Comm.; erect \$150,000 building; L. L. Oberworth, Archt. (Lately noted.)

Ky., Harlan.—Christian Church, Rev. William Burleigh, Pastor and Chrmn. Bldg. Comm.; erect \$32,000 church and Sunday-school building; 2 stories; 45x60 ft.; brick; Burnett & Loggans, Archts., Interstate Bldg., Bristol, Va.

Ky., Harlan.—Christian Church, Rev. Wm. Burleigh, Pastor and Chrmn. Bldg. Comm.; will erect \$32,000 church and Sunday-school building; 50x90 ft.; concrete, brick and frame; Carey composition roofing; pine, hardwood and concrete floors; steam or hot-water heat; electric lights; metal ceilings; Burnett & Loggans, Archts., Bristol, Tenn. (Lately noted.)

Ky., Hazard.—Old House Coal Co. will construct church. (See Dwellings.)

Ky., Newport.—Church of the Nazarene, M. B. Tolls, Chrmn. Bldg. Comm., 7th and York Sts.; erect \$30,000 building; 1 story and basement; 42x62 ft.; concrete, brick, steel trusses; Louis H. Wilson, Archt., Woolsock Bldg.

Md., Annapolis.—Protestant Episcopal Church, Rev. R. C. Cowling, Rector, R. F. D. Annapolis; plans to erect \$10,000 parish-house, St. Margaretts; 1 story; 30x62 ft.; plans by owner.

Md., Baltimore.—Franklin Street Presbyterian Church, Franklin St. and Park Ave.; convert residence, Franklin and Cathedral Sts., into parish-house; Thos. Machen, Archt., Fidelity Bldg.

Md., Baltimore.—Liberty Heights Baptist Church, Liberty Heights and Montgomery Aves., Rev. Geo. Pitt Beers, Pastor, 3909 Kate Ave.; plans to erect \$60,000 Sunday School

and community building; stone; slate roof; wood floors; steam heat; electric lights; details indefinite; expects to consider plans and contract in spring.

Md., Frederick.—First Baptist Church, Rev. W. C. Royal, Pastor; erect \$40,000 building; B. Evard Kepner, Archt., 34 N. Market St.

Mo., Kansas City.—Keneseth Israel Synagogue, 1425 Locust St.; reported to erect \$200,000 building, 34th St. and the Paseo; 75x120 ft.; buff brick and stone; Grecian temple style; seat 1250; Selby H. Kurfass, Archt., Searritt Bldg.

Mo., St. Louis.—West Park Baptist Church, 5940 Easton Ave., will erect \$100,000 building; 2 stories; 60x100 ft.; ornamental pressed brick and white stone; rock foundation; H. W. Jones, Archt., 5940 Easton Ave.

N. C., East Durham.—East Durham Baptist Church, Rev. H. F. Brinson, Pastor; erect \$75,000 building; 2 stories; 96x96 ft.; brick, stone trim; frame roof; Chas. W. Carlton, Archt., 416 Temple Court Bldg., Chattanooga, Tenn.; day work.

N. C., Mooresville.—Second Methodist Church, Rev. J. H. Capps, Pastor; erect temporary tabernacle pending erection of \$25,000 church, Wilson Ave. and Broad St.

Tenn., Idlewild.—Presbyterian Church, Warren Newsom and Mrs. A. L. Pritchard, Comm.; erect \$200,000 building, Union and McLean Sts.

Va., Burkeville.—Baptist Church, Rev. Jno. E. White, Pastor; erect church and Sunday-school; 1 story; 60x85 ft.; brick; limestone trim; \$22,000; Herbert L. Cain, Archt., 12 N. 9th St., Richmond.

W. Va., Bluefield.—Methodist Episcopal Church, Rev. Thos. G. Howard, Pastor, Box 292; erect brick building; 2 stories and basement; 23x90 ft.; slate roof; electric and gas lights; Alex. B. Mahood, Archt., Law & Commerce Bldg. (Lately noted.)

City and County.

Fla., West Palm Beach.—City Hall.—City will erect \$25,000 city hall; 50x100 ft.; concrete; fireproof roofing; concrete floors; gas heat; electric lights; vaults; Joseph Firth, Archt. (Lately noted.)

Fla., West Palm Beach.—Jail.—City will erect \$10,000 jail; 40x100 ft.; concrete; fireproof roofing; concrete floors; stove heat; electric lights; plans by Jos. Firth, Archt., or Karl Riddle, City Mgr. Address Karl Riddle. (Lately noted.)

N. C., Smithfield.—Market-house, etc.—Board of Alderman; bids until Dec. 20 for \$90,000 water, sewer and market-house bonds; W. L. Fuller, Town Clk.

Tex., Houston.—Sheds, etc.—City; erect passenger and freight shed, and two shelter-houses for longshoremen, adjoining wharf No. 4. Address The Mayor.

Courthouses.

Fla., Panama City.—Bay County Commrs.; erect courthouse to replace structure lately noted burned.

Ky., Harlan.—County Commrs.; erect \$300,000 courthouse; 2 stories and basement; brick; C. C. and E. A. Weber, Archts., Miller Bldg., Cincinnati, O.

W. Va., New Cumberland.—Hancock County Commrs., J. R. Hobbs, Clk.; erect \$200,000 courthouse; 2 stories and basement; brick and stone; Richard M. Bates, Archt., First Natl. Bank Bldg., Huntington. (Previously noted.)

Dwellings.

D. C., Chevy Chase.—J. W. Kearney, 321 15th St. N. W., Washington; prepared plans

for \$16,000 residence, 37th and Livingston Sts. N. W.

D. C., Washington.—Frank Upman and Percy Adams, Woodward Bldg.; preparing plans for 2-story country residence.

D. C., Washington.—R. J. O'Neill, 1147 Connecticut Ave. N. W.; prepared plans for \$7000 residence, 44 Eades St. N. E.; 2 stories and cellar; 35x25 ft.; brick and frame.

D. C., Washington.—Jas. E. Cooper, Commercial National Bank Bldg., prepared plans for \$30,000 residence, Montgomery County, Md.; frame and terra-cotta; shingle roof; oak floors; steam heat. (Previously noted.)

Fla., Bartow.—Bartow Home Builders' Assn.; erect 15 dwellings.

Fla., Daytona.—Jno. A. Rogers; preparing plans for residence and 2 bungalows; \$5000 each.

Fla., Fort Lauderdale.—Chamber of Commerce; promoting organization of \$25,000 to \$50,000 company to erect dwellings.

Fla., Jacksonville.—J. H. Hawkins; erect \$5000 frame dwelling, Riverside between King and James Sts.

Fla., Jacksonville.—O. P. Woodcock; erect \$15,000 residence, 2310 St. John Ave.

Md., Baltimore.—Westphal & Schoenhals, Park Bank Bldg.; erect 5 two-story brick dwellings, 111-19 N. Bentalou St.; \$15,000; and 3 two-story brick dwellings, 114-18 Smallwood St.; \$7500.

Fla., Miami.—J. D. Higbee; erect residence and 2 bungalows.

Fla., St. Petersburg.—Dr. Roy R. Ridgely; erect \$6000 2-story residence, Beach Drive and 14th Ave.

Fla., Tampa.—Theodore Krumm; erect number of bungalows in connection with development of property.

Fla., Tampa.—W. L. Taylor; erect \$7500 frame dwelling, 305 S. Newport Ave.; 2 stories.

Fla., Tampa.—Peter O. Knight; enlarge and improve dwelling; \$5000.

Fla., Tarpon Springs.—C. A. and C. H. Doge; erect 20 bungalows.

Ky., Collins.—Elkhorn-Shelby Creek Coal Co. will erect 15 miners' houses; contract by first of year.

Ky., Esco.—Wagner Fuel Co. will erect miners' houses, tippie, store and church; contract at once.

Ky., Hazard.—Old House Coal Co. will construct 25 miners' houses, coal tippie, church, school and open mines; develop daily capacity of 500 tons.

Ky., Type.—Black Joe Coal Co. will construct 10 miners' houses at Leonard; contract let at once.

Ky., Whitesburg.—G. C. Crisillis and E. F. White, Williamsburg, Ky., took over Caudill Coal Co. and will improve; erect several miners' houses, etc.

Ky., Williamsburg.—Mahan-Ellison Coal Co., will construct 23 miners' houses; contract at once.

La., Lake Charles.—Knapp & East; erect 24 bungalows in connection with development of property; \$75,000 to \$100,000.

La., New Iberia.—Liberty Building Co., New Orleans; plans to erect number of dwellings; Ventress J. Smith, John R. Taylor and Clent Girard, New Iberia, interested.

La., Shreveport.—T. E. Willis; erect \$40,000 residence, Robinson Pl.

Md., Baltimore.—Gen. Francis E. Waters, Union Trust Bldg.; erect residence, Guilford; Bayard Turnbull, Archt., 328 N. Charles St.

Md., Baltimore.—Robert S. Green, 3232 Frederick Ave.; erect \$10,000 residence and garage. Liberty Heights and Calloway Aves.; 2 stories; hollow tile.

Md., Baltimore.—G. Bernard Lohmuller, 3100 Greenmount Ave.; erect \$7000 residence, Rosedale Ave., nr. Harford Rd.; 2½ stories; frame.

Md., Cumberland.—Jno. O. Stump; erect residence and garage; 2 stories; attic and cellar; brick; \$20,000; R. W. Geare, Archt., Woodward Bldg., Washington, D. C.

Md., Hagerstown.—O. C. Keedy, 262 S. Mulberry St.; erect \$14,000 residence; 1½ stories; 26x26 ft.; plans and construction by owner

Md., Halpine.—International Shoe Heel Corp., A. K. Pomroy, Prest., Continental Trust Bldg., Washington, D. C.; reported to erect 100 dwellings; 2 stories; 20x30 ft.; frame; \$300,000; Cutler & Woodbridge, Archts., 13th St. and Key Ave., Washington.

Mo., Springfield.—C. A. Morseman; erect number of dwellings near Morse Park.

Mo., Kansas City.—H. B. McCray, 210 E. 10th St.; erect \$15,000 residence and garage, Sunset Hill District; 2 stories and basement; 28x56 ft.; brick and frame; shingle roof; Brostrom & Drotts, Archts., 402 Reliance Bldg.

Mo., Kansas City.—O. G. Lee, 522 Reserve Bank Bldg.; erect \$9000 residence, 600 W. 59th St.; 2 stories and basement; 30x38 ft.; frame; shingle roof; plans by owner; day work.

Mo., St. Louis.—L. Rescia, 6120 Oakland St.; erect \$12,000 residence, Clayton Rd. and Billon Ave.; 1 story; 28x44 ft.; brick; O. J. Popp, Archt., Odd Fellows Bldg.

Mo., St. Louis.—Mrs. Edw. L. Delch, 4542 Parkview Pl.; erect \$12,000 dwelling; 2 stories; 26x35 ft.; brick; Maritz, Henderson & Young, Archts., Chemical Bldg.

Mo., University City.—W. W. Forsman, 2322 Tower Grove Ave., St. Louis; erect \$12,000 residence and garage; 2 stories; 29x30 ft.; brick; E. Tuchschnidt, Archt., Wainwright Bldg., St. Louis.

N. C., Charlotte.—Frank Conrad; erect \$7000 residence, Park Terrace.

N. C., Greensboro.—Ralph J. Hole; erect \$20,000 residence, Irving Park; 9 rooms; frame; shingle roof; oak floors; steam heat; interior tile; Albert C. Wirth, Archt., 302 Banner Bldg.; construction by owner under supervision R. P. Nichols. (Lately noted.)

Tenn., Johnson City.—D. R. Beeson, Harr Bldg.; reported preparing plans for 8 residences for Government; \$12,000; 1 story; 40x48 ft.; frame.

Tenn., Johnson City.—H. K. James; erect \$15,000 residence; 1 story; 35x60 ft.; brick; D. R. Beeson, Archt., Harr Bldg.; construction by owner.

Tenn., Kingsport.—A. D. Brockman, First Natl. Bank; erect \$14,000 residence; 1 story; 28x48 ft.; brick; D. R. Beeson, Archt., Harr Bldg., Johnson City.

Tenn., Memphis.—Chas. Stribling; erect \$5500 residence, 963 Lauderdale St.; 5 rooms; brick veneer.

Tenn., Memphis.—B. L. McDermott; purchased farm near Memphis; plans to erect residence.

Tex., Dallas.—Tom Leachman; erect \$10,000 residence, 4311 Glenwood St.; 6 rooms; brick veneer.

Tex., Dallas.—Fletcher McNeny; erect \$10,000 residence, 3702 Cragmont St.; 6 rooms; brick veneer.

Tex., El Paso.—J. F. Knox; erect 10 brick bungalows, East El Paso; \$20,000.

Tex., Houston.—Jas. H. Edmonds Co., 1403 Gray Ave.; contemplates erecting 12 five and six-room bungalows; \$7500 each. (See Machinery Wanted—Builders' Hardware; Radiators, etc.; Electric Fixtures.)

Tex., San Antonio.—Everett Love; erect residence, Linwood Blvd., Monte Vista Addition; Italian style; reinforced concrete

foundation; brick, cement; stone trim; variegated Italian tile roof; tile and hardwood floors; hot-water heat; refrigerating system; Adams & Adams, Archts.

Va., Bristol.—Worley W. Fain, Water St.; erect \$10,000 residence, Seventh Ave.; 1½ stories; 47x61 ft.; brick and frame; Henry Doriot, Archt., Spurgeon Bldg.; day work.

Va., Cape Charles.—L. W. Stevenson; erect \$25,000 dwelling; 2 stories; 35x38 ft.; brick; H. Robt. Diehl, Archt., New Monroe Bldg., Norfolk.

Va., Capeville.—E. V. Downs; erect \$9000 dwelling; 2 stories; 28x56 ft.; frame; H. Robt. Diehl, Archt., New Monroe Bldg., Norfolk.

Va., Coeburn.—C. B. Kearfott, Bristol; prepared plans for \$10,000 residence; 3 stories; 30x40 ft.; brick.

Va., Gordonsville.—Allen Potts; erect residence to replace building ~~intended~~ burned; \$12,000 to \$15,000; hollow fireproof tile; hardwood floors; plaster board.

Va., Lynchburg.—Mrs. R. D. Apperson; erect \$10,000 9-room residence, Huron Ave

Va., Linkhorn.—Chas. W. Koolage, Flatiron Bldg., Norfolk; erect \$10,000 residence; 1½ stories; 28x26 ft.; frame; \$10,000; Wickham C. Taylor, Archt., Citizens' Bank Bldg., Norfolk.

Va., Hollins.—Mrs. Chas. H. Thompson; erect residence, garage and tenant's-house; 2 stories; 32x44 ft.; rubble stone; \$24,000; Eubank & Caldwell, Archts., Express Bldg., Roanoke.

Va., Roanoke.—T. T. Fishbourne; erect \$20,000 residence, Grandin Rd., Raleigh Court; 2 stories; brick.

W. Va., Holden.—Island Creek Coal Co. will erect 50 miners' dwellings, near Holden.

W. Va., Princeton.—J. H. Gadd plans to erect residence.

W. Va., Princeton.—Jos. M. Randish; erect number of dwellings.

Va., Richmond.—W. D. Hurt, 704 Graham Rd.; erect dwelling, Montrose St. and Ladey Mill Rd.; 2 stories; 24x35x25 ft.; frame and stucco; \$8000; plans and construction by owner.

W. Va., Wheeling.—H. L. Trussell; erect \$10,000 frame house, Birch Lynn.

Government and State.

Ala., Tuscaloosa.—Home.—Alabama Home for Feeble-Minded, Dr. W. D. Partlow, Supt.; C. B. Verner, Chrmn. Building Comm.; erect \$125,000 building; fireproof; accommodate 160 patients; heating plant, laundry and kitchen, \$50,000; D. O. Whilden, Archt., Title Guarantee Bldg., Birmingham; date opening bids indefinite. (Lately noted.)

N. C., Charlotte.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C.; bids until Dec. 27 to construct mailing vestibule, etc., in postoffice; also to install electric freight elevator; drawings and specifications at office Custodian at site and office Mr. Wetmore. (See Machinery Wanted—Elevator.)

Tenn., Athens.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C.; erect postoffice; 1 story and basement; 45x47 ft.; concrete, reinforcing metal, stone, brick, miscellaneous iron, steel, composition roof, dampproofing, sheet metal, plastering, interior marble, sanitary slate, lumber, millwork, painting, hardware, plumbing, heating, electric work; \$55,000; King Lumber Co. low bidder, Charlottesville, Va. (Lately noted.)

W. Va., Charleston.—Post Office.—Treasury Dept., Jas. A. Wetmore, Acting Suprv. Archt., Washington, D. C.; receives bids until Dec. 3 to construct mezzanine floor, etc. in post office; plans and specifications at office of custodian of site and office of Suprv. Archt.

Hospitals, Sanitariums, Etc.

Ala., Anniston.—Susie Stringfellow Memorial Hospital; erect \$100,000 building, Leighton Ave. and 18th St.; 50 bedrooms, 2 operating-rooms, etc.; W. W. Stringfellow interested.

D. C., Washington.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., receives bids until Dec. 22 for mechanical equipment for hospital building Unit E-F, boiler-house, kitchen and laundry building, changes and additions in Unit D and in house for officer-in-charge; electric conduit and wiring in tunnels connecting Units A, B, C, D and E-F; also removal certain plumbing in Units B and C, and extension of outside lighting and power feeders of U. S. Hospital No. 32, 2650 Wisconsin Ave.; drawings and specifications from office Supervising Archt. (See Machinery Wanted—Mechanical Equipment; Plumbing; Electrical Equipment.)

Miss., Meridian.—City; voted \$20,000 bonds for extensions and improvements to Matty Hersee Charity Hospital. Address The Mayor. (Lately noted.)

N. C., Charlotte.—Good Samaritan Hospital, Mrs. M. M. Murphy, Prest., Mrs. Fred Clover, V.P. of board of managers; plans to erect \$20,000 addition to building.

Okla., Okmulgee.—City; voted \$150,000 bonds to construct building and erect addition to hospital. Address The Mayor.

S. C., Greenville.—United States Public Health Service, Washington, D. C., will rebuild hospital lately noted burned at Camp Sevier.

Tenn., Chattanooga.—Dr. F. J. Hackney; plans to erect \$125,000 sanitarium, 11 McCaillie Ave.; 8 stories.

Tex., Cisco.—City; convert Britton Training School into hospital; brick and stone. Address The Mayor. (Lately noted.)

Tex., San Antonio.—Santa Rosa Infirmary; erect \$375,000 addition, Houston St. and Santa Rosa Ave.; 4 stories; fireproof; reinforced concrete, faced with brick; terra-cotta trim; 160x88 ft.; tar and gravel roof; concrete, tile, marble and cork floors; steam heat; city lights; electric elevators, \$20,000; hollow fireproof tile; interior tile; metal doors; wire-glass; 100 patient-rooms; 6 operating-rooms; Altee B. Ayres, Archt., 626 Bedell Bldg.; bids opened about Feb. 1. (Lately noted.)

Hotels.

Fla., St. Augustine.—Doreta Hotel Corp., chartered; \$10,000 capital; David Stancliff, Dorothy W. Stancliff, Harriet W. Chadwick.

Fla., Jacksonville.—Newport Hotel, Broad and Adams Sts.; repair structure noted damaged by fire.

La., Monroe.—H. M. Ford, Mgr. Star Hotel; expend \$10,000 for improvements.

Mo., Springfield.—B. T. Delafield, Propr. Big Spring Inn; erect 30-room addition.

N. C., Salisbury.—Empire Hotel Incptd.; \$25,000 capital; Wade H. Lowery, Cabell Young and W. T. Tenille, all Greensboro.

N. C., Winston-Salem.—Dr. W. H. Bruce, Winston-Salem, and Bishop L. W. Kyles, St. Louis, will erect \$100,000 hotel on Depot St. between 7th and 8th Sts.; 100 or more rooms; 4 stories and basement; steam heat; shower and tub baths, laundry, reading-room, parlors and cafe; Gilbert C. Humphries, Archt., Winston-Salem.

Tex., Mexia.—First National Bank organized; \$750,000 capital; is reported to erect \$600,000 steel building; 6 stories; first floor for bank; upper stories for hotel.

Miscellaneous.

N. C., Raleigh.—Club.—South Atlantic Club Incptd.; \$150,000 capital; F. A. Fetter, N. C. Hines, both Raleigh; J. M. Templeton, Jr., Cary.

Railway Stations, Sheds, Etc.

S. C., Langley.—Southern R. R., J. S. Lemond, Ch. Engr., M. W. & S., Lines East, Charlotte, N. C.; construct depot to replace burned structure.

Schools.

Ala., Flat Rock.—Flat Rock School, Rev. S. L. Dobbs, member board of directors; rebuild dormitory noted burned.

Ala., Thorsby.—Thorsby Institute, S. E. Norton, Secy.; erect kitchen and dining-room, first of several buildings contemplated; 40x120 ft.; 1 story; frame and brick veneer; composition shingle roof; pine floors; stoves; \$12,500; C. H. Thomsen, Archt., will purchase materials and supervise construction. (Lately noted.)

Ga., Dearing.—Dearing School Dist., O. Howard, Secy.—Treas.; erect school to replace burned structure lately noted; plans vote on bond.

Ga., Louisville.—Louisville School Dist. Trustees; erect \$50,000 to \$75,000 school; \$100,000 bonds voted.

Ga., Kirkwood.—City, T. J. Bryan, Mayor, voted \$50,000 bonds to school.

Ky., Hazard.—Old House Coal Co. will construct school. (See Dwellings.)

Ky., Owensboro.—Board of Education, J. J. Sweeney, Prest.; probably call election for Jan. 15 on \$300,000 bonds; changed date from Dec. 4. (Lately noted.)

Md., Baltimore.—Gilman Country School for Boys, Roland and Belvidere Aves.; erect building; Parker, Thomas & Rice, Union Trust Bldg., preparing preliminary plans.

Md., Baltimore.—St. Mary's Industrial School, Brother Paul, Supt.; bids until Dec. 7 to erect fourth building of group; 65x166 ft.; 4 stories; Port Deposit granite; limestone trim; assembly hall to seat 1800; classrooms, sleeping-rooms, etc., on second floor; \$500,000; Hugh J. Kavanaugh, Archt., 913 N. Calvert St.; following contractors estimating: Cogswell-Koether Co., 406 Park Ave.; Price Construction Co., Maryland Trust Bldg., and St. Mary's Industrial School, Wilkens and Canton Aves.; J. J. Moylan, 538 N. Calvert St.; T. D. Keating, 2121 W. Baltimore St.; Frairie Bros. & Haigley, 18 Clay St.; J. J. O'Conner, 52 Knickerbocker Bldg. (Previously noted.)

Miss., Bay Springs.—Jasper County Board of Education, Paulding, will erect Agricultural High School; \$20,000.

Miss., Columbus.—Mississippi State College for Women, J. C. Fant, Prest., will erect dormitory, \$320,000; teachers' home, \$100,000; extension and improvements to power plant, \$40,000; addition to hospital, \$10,000; Theo. C. Link, Archt., Jackson, Miss.

Miss., Rosedale.—Rosedale Consolidated School, Geo. McGee, Chrmn. Board of Trustees; bids until Jan. 3 to erect \$70,000 school; brick; hollow fireproof tile; asbestos shingle roof; pine floors; steam heat; plans and specifications at office Alsop & Callahan, Archts.; Selig & Mandeville, Asso. Archts., both 764 Randolph Bldg., Memphis, Tenn. (Lately noted.)

N. C., Canton.—Board of Education; erect \$85,000 school; election Dec. 4 on \$150,000 bonds.

Tenn., Columbia.—Maury County Board of Education; plans to erect several schools;

considering \$70,000 to \$80,000 bond issue to be supplemented by various districts.

Tex., El Paso.—Committee, Chas. Bassett, Chrmn., 303 Reynolds Bldg., plans to raise \$250,000 by popular subscription to supplement similar amount contributed by Sisters of Loretto for erection and equipment of college for women.

Tex., Fort Worth.—Texas Woman's College will erect George E. Tandy Memorial building.

Tex., Houston.—City, A. E. Ammerman, Mayor, voted \$150,000 school bonds. (Lately noted.)

Va., Ettrick.—School Board; erect \$40,000 grade school; 8 rooms and auditorium; 2 stories and basement; 65x110 ft.; brick; Coopee Lal, Archt., Law Bldg., Petersburg. (Previously noted.)

Va., Hampton.—Elizabeth County Board of Supervisors, Hunter R. Booker, Chrmn.; considering calling election on \$200,000 school bonds.

Va., Phoebus.—Elizabeth County Board of Supervisors, Hunter R. Booker, Chrmn., Hampton; considering calling election on \$80,000 school bonds.

W. Va., Ripley.—Board of Education; erect \$60,000 grade school; 2 stories and basement; 70x60 ft.; brick; limestone trim; wood floors; L. J. Dean, Archt., Foster Bldg., Huntington.

W. Va., Sugar Grove.—Board of Education, W. M. Feltner, Secy., Y. M. C. A., Grafton; bids until Dec. 8 to erect schools at Sugar Grove and Sand Lick; plans and specifications at office Mr. Feltner.

Va., Wythe.—Elizabeth County Board of Supervisors, Hunter R. Booker, Chrmn., Hampton; called election on \$200,000 school bonds.

Stores.

Ky., Esco.—Wagner Fuel Co. will erect store. (See Dwellings.)

La., Lake Charles.—Calcasieu Mercantile Co., F. R. Yeatman, Gen. Mgr.; erect \$100,000 grocery and cold-storage building, Pujo and Front Sts.; 3 or 4 stories; brick and concrete; cold-storage equipment, \$25,000.

La., Lake Charles.—Murray-Brooks Hardware Co.; erect building, Broad and Front Sts.

La., New Orleans.—M. C. Nelson; remodel store, 527 Rampart St.

Md., Baltimore.—Geo. W. Wilkinson, Crown Electric Co., 142 N. Gay St., purchased property at 419-25 High St.; considering erecting building.

Mo., Kansas City.—A. G. Belinder; remodel and erect addition to store, 17th and Holly Sts.; 1 story and basement; \$10,000; C. M. Williams, Archt., 404 Grand Avenue Temple Bldg.

Mo., St. Louis.—Brown Realty Co., 5998 Easton Ave.; erect \$50,000 store and office building, Zephyr Hills; 2 stories; brick.

Mo., St. Louis.—Delhi Battery & Supply Co.; plans to erect \$100,000 mercantile building, 2700 Locust St.; 2 stories; 80x135 ft.; fireproof; brick; P. J. Bradshaw, Archt., International Life Bldg.

Tenn., Bristol.—Holston Creamery Co., W. A. Owen, Mgr.; erect \$18,000 store and office building; 2 stories; 50x100 ft.; brick; D. R. Beeson, Archt., Harr Bldg., Johnson City; owner taking bids.

Tenn., Memphis.—Mrs. C. Zito; repair brick store, 272 N. Main St.; \$6000.

Tex., Dallas.—E. J. Kleist; erect 3-story brick building, Pacific St.; \$24,000.

Tex., Dallas.—R. H. Stewart will expend \$25,000 to repair and erect addition to building, 1316 Commerce St.

Tex., Dallas.—Geo. A. Hormel; erect 2-story and basement brick building, 211 N. Lamar St.; \$75,000.

W. Va., Weirton.—Hom Yick; erect store and apartment building, Avenue A; brick and stone; D. A. Croul, Archt., Savoy Theater Bldg., Pittsburgh, Pa.

Warehouses.

Fla., Jacksonville.—City Commission, Jno. S. Bond, Chrmn., plans bond issue for municipal docks and terminals; will construct one or more piers and two warehouses.

Ky., Middlesboro.—Kentucky Mine Supply Co.; erect \$25,000 addition to warehouse; 2 stories; 40x120 ft.; brick; composition roof; concrete floors; hot-water heat; electric elevator, 1-ton capacity; Barber & McMurray, Archts., Burwell Bldg., Knoxville, Tenn.

La., New Orleans.—Austin Machinery Corp., Chicago; erect warehouse.

Miss., Meridian.—A. H. George & Co.; rebuild warehouse, 5th St. and 29th Ave., noted burned at loss of \$30,000 to \$40,000.

S. C., Pelzer.—Farmers & Merchants' Warehouse Co. chartered; W. T. Allison, Prest.; W. K. Hudgens, V.-P.; T. J. Crane, Secy.-Treas.

Va., Chatham.—S. S. Gregory, Java; R. P. Blair, Chatham, and others; promoting erection lime-storage house.

W. Va., Martinsburg.—Henry M. Cole, 115 S. Maple St.; erect \$8000 warehouse; 1 story; 24x30 and 68x70 ft.; brick; construction by owner.

W. Va., Wheeling.—Wheeling Axle Co.; erect steel building, 27th and Main Sts.; \$6500.

kins, Castleton Apartment Hotel; alter and erect addition to residence, 1422 Massachusetts Ave. N. W.; 4 stories; 34x115 ft.; \$8000; Wardman & Waggaman, Archts.; Harry Wardman, Contr.; both 1430 K St. N. W.

D. C., Washington.—F. A. Schmidt, 1475 Columbia Rd. N. W.; erect \$25,000 residence and garage, 1608 Buchanan St. N. W.; 2 stories; 42x33 ft.; A. F. Clark, Jr., Archt., 816 14th St. N. W.; G. G. Loehler, Contr., Franklin Bank Bldg. (Lately noted.)

D. C., Washington.—F. D. Grebor; erect \$8800 dwelling, 1511 Gallatin St. N. W.; Meatyard Construction Co., Contr., 921 15th St.

Fla., Daytona.—Steiger & Brown will erect \$5000 golf club building and 2 bungalows, \$2000 and \$7800; club, 24x31 ft.; bungalows, 24x23 ft.; frame, stone and stucco; composition shingle roof; oak, pine and concrete floors; gas heat; city lights; John A. Rogers, Archt. and Contr., Box 506. (Lately noted.)

Ky., Providence.—M. C. Palmer; erect 2-story brick residence; 50x44 ft.; asbestos roof; pine floors; hot-water heat, \$700; electric lights, \$500; Clifford-Shoppell Company, Archt., Furniture Bldg., Evansville, Ind.; Ruby Lumber Co., Contr., Providence. (Lately noted.)

Md., Emmitsburg.—Lutheran Church, Rev. Wm. C. Day, Pastor; erect \$7500 parsonage; 2½ stories; 30x32 ft.; plans by owner; C. C. Cover & Sons, Contrs., Keyman.

Md., Baltimore.—Louis M. Kimmel; erect \$5000 residence, Batavia and Harford Aves.; 1 story; frame; 30x48 ft.; John C. Clark & Co., Inc., Contr., 1109 Mosher St.

Mo., St. Louis.—J. C. Brum, 2915 Franklin St.; erect 2 dwellings, Shaftsburg Heights; 2 stories; \$16,000; 25x31 ft.; S. O. Schumacker, Archt., 3622 Keokuk St.; J. Chapman, Contr., 4244 Clarence St.

Va., Portsmouth.—Mrs. J. W. Austin; erect \$7700 cottage, Raleigh Heights; C. N. Trotman, Contr.

Va., Roanoke.—R. T. Fishburne will erect \$15,000 residence; brick; slate roof; red oak and concrete floors; heating plant \$1500; H. M. Miller, Archt.; D. C. Wood, Contr.

Va., Roanoke.—T. T. Fishburne will erect \$20,000 residence; 2 stories; brick; slate roof; red oak, concrete floors; heating plant, \$1500; Nichols-Chandler Co., Archt., Oklahoma City; D. C. Wood, Contr., Roanoke. (Lately noted.)

W. Va., Charleston.—Dr. E. J. Stahl, 208½ Capital St.; erect \$10,000 residence; 2 stories and basement; 25x30 ft.; brick; Wallace Knight, Contr., Solof Bldg. (Lately noted.)

Government and State.

D. C., Washington.—Office and Laboratory, etc.—Bureau of Yards and Docks, C. P. Parks, Chief, Navy Dept.; erect 3-story office and laboratory; about 200x60 ft.; 2-story machine and testing shop, 300x82 ft.; 2-story pattern shop, 100x60 ft.; 1-story foundry, 100x60 ft.; power-house, 81x69 ft., with coal bin in rear; concrete foundation for 150-ft. radial brick chimney, 7 ft. inside diameter at top; 3 railroad spur tracks and grading site of laboratory at Naval Experimental and Research Laboratory, Bellevue; buildings of reinforced concrete frames; concrete footings; floor and roof slabs; structural steel; 5-ply coal tar impregnated rag felt and slag roof; steel sash; steel metal-covered and wood doors; cast-iron fascia; hollow-tile walls and partitions; wood stud partitions; plaster board; suspended ceilings; cement, wood-block and linoleum floors; plumbing, lighting and fire-protection systems; vacuum steam heat; steel trestle over coal bin; seawall; circulating-water intake and discharge systems for power-house; cost \$653,000; Boyle-Robertson Construction Co., Contr., 601 Evans Bldg. (Lately noted.)

BUILDING CONTRACTS AWARDED

Apartment-Houses.

Fla., Miami.—C. F. Goodman will erect \$100,000 apartment-house, Biscayne Drive and Flagler St.; 3 stories; concrete; composition roof; 30 apartments; A. E. Nolan, Archt.; contract let.

Ky., Paducah.—Paducah Architectural & Engineering Co., E. Miller, Prest.; will expend \$500,000 to erect 2 three-story apartment buildings; 38 and 50 suites; brick and stucco; concrete foundation and footing; Barrett roofing; rift pine, hardwood and concrete floors; steam heat; electric lighting; hollow fireproof tile; plaster board; ornamental terra cotta; interior tile; wire glass; mail chutes; ventilators; steel sash and trim; W. C. McCrady, Archt.; G. W. Katterjohn & Son, Contrs.; heating not let. (Lately noted.)

Mo., St. Louis.—W. F. Schaefer, 3616 S. Jefferson Ave.; erect \$20,000 apartment-house, Grand and Chippewa Sts.; 2 stories; 28x52 ft.; Nolte & Nauman, Archts., Fullerton Bldg.; Erdbrugger & Beumer, Contrs., 2909 National Bridge Ave.

Va., Hampton.—G. K. Sinclair; erect \$20,000 apartment-house; 3 stories; 46x72 ft.; R. V. Richardson, Contr.

Association and Fraternal.

Okl., Tulsa.—Carpenters' Union No. 943 will erect \$25,000 brick building, 114 S. Detroit St.; T. H. Clark, Contr.

W. Va., Welch.—American Legion; remodel building for war memorial; 2 stories; 35x110 ft.; brick; \$19,870; Alex. B. Mahood, Archt., Law and Commerce Bldg., Bluefield; Chas. H. Smithy, Contr., Welch. (Previously noted.)

Bank and Office.

Md., Baltimore.—Standard Oil Co., Pier 2, Pratt St.; erect \$1,500,000 office building, Courtland and Franklin Sts.; 15 stories; 90x140 ft.; fireproof; brick and marble; steel; limestone; concrete foundation; promenade tile roofing; concrete floors; hollow fireproof tile; interior tile; metal doors; wire glass; mail chutes; ventilators; steel and sash trim; 4 high-speed elevators; Clyde N. Friz, Archt., 2010 Lexington Bldg.; J. Henry Miller, Inc., Contr., Franklin and Eutaw Sts. (Lately noted.)

Mo., St. Louis.—St. Louis Cooperage Co., C. F. Meyer, Prest., 101 Arsenal St.; erect \$20,000 office, toilet and garage, First and Arsenal Sts.; 2 stories; 84x16 ft.; Leonard Haeger, Archt., 3844 Utah Pl.; Geo. Mueller, Contr., 3520 Itaska Ave.

Tex., Dallas.—Magnolia Petroleum Co., Great Southern Life Bldg.; erect \$2,000,000 office building; 24 stories; 100x120 ft.; rein-

forced concrete and steel; composition pitch felt and gravel roof; concrete and tile floors; Alfred C. Bosson, Archt., 366 Fifth Ave., New York; Lang & Wittchell, Asso. Archts., American Exchange National Bank Bldg., Dallas; C. T. Wills, Inc., Contr., 286 Fifth Ave., New York; Brinkley Brick & Tile Co., Coleman, Tex., building material. (Previously noted.)

Tex., Fort Worth.—W. D. Reynolds will remodel building at 9th and Commerce Sts. for Consolidated Ticket Offices; 3 stories; tile and concrete floors; metal ceilings; fan system of ventilating; steam heat; electric lights; \$15,000; Hedrick Construction Co., Contr.

Va., Bristol.—Union Trust Bank will remodel building and install fixtures; C. B. Kearfott, Archt.; Martin & Jones, Contrs. (Lately noted.)

Churches.

Mo., Kansas City.—B'nai Jedudah Congregation, A. G. Wormser, Chrmn. Bldg. Comm., 3735 Campbell St.; erect \$150,000 addition; auditorium to seat 700; 2 stories and basement; 70x110 ft.; Greenbaum, Hardy & Schumacker, Archts., Scarritt Bldg.; Hoffman Construction Co., Ridge Bldg. (Previously noted.)

Tex., Cameron.—First M. E. Church South, Rev. Ira F. Key, Pastor, will erect \$81,000 building; 120x60 ft.; 3 stories; concrete and brick; fireproof; concrete, tar and gravel roof; hot-air heat, \$4000; electric lights, \$1000; Waller & Sibley, Archts., 507 Bedell Bldg., San Antonio; J. E. Johnson Construction Co., Contr., Waco. (Lately noted.)

City and County.

Tenn., Nashville.—Fire Hall.—Board of Comms., J. W. Dashiell, Secy.; convert west end of market-house into 2-story fire hall; \$10,000; 27x60 ft.; brick; hollow tile; composition shingle roof; Marr & Holman, Archts., 701 Stahlman Bldg.; Advance Construction Co., Contr. (Lately noted.)

Dwellings.

Ala., Greenville.—R. A. Beeland will erect bungalow; H. P. Jones Constr. Co., Contr.

D. C., Washington.—Robert J. O'Neill, 1147 Connecticut Ave., Archt. and Contr.; to erect \$6500 residence, 44 Eades St. N. E.; 2 stories and cellar; 20x30 ft.; frame; shingle roof; oak and pine and concrete floors; hot water heat; electric lights. (Lately noted.)

D. C., Washington.—H. E. Beall; erect dwelling, 1227 Michigan Ave. N. E.; 2 stories; 26x26 ft.; \$6100; C. E. Garland, Contr., 66 V St. N. W.

D. C., Washington.—Mrs. Frances J. Ran-

Hospitals, Sanitariums, Etc.

Okla., Talihina. — State Board of Public Affairs, Geo. F. Clark, Chrmn., Oklahoma City; erect \$100,000 tuberculosis sanitarium; Chas. P. Neider, Archt., Empress Theater Bldg.; C. M. Crisman, Contr., both Oklahoma City. (Lately noted.)

Tenn., Chattanooga. — Pine Breeze Sanitarium will erect addition 1 story; frame; 230x35 ft. in center, 20 ft. on ends; dormitories, dining-room, administration building; E. E. Betts, Engr.; F. C. Schneider, Contr. (Previously noted.)

Miscellaneous.

Okla., Oklahoma City—Coliseum.—Oklahoma Coliseum Corp., M. D. Scott, Prest.; erect \$147,200 building, exclusive of lights, heat or seating; steel, brick and concrete; C. E. Huffman, Contr.

Tex., Lockney—Cafe.—T. B. Hill; erect cafe; 1 story; brick; 30x100 ft.; W. O. Starks, Contr.

Railway Stations, Sheds, Etc.

Okla., Okmulgee.—St. Louis-San Francisco

R. R., F. G. Jonah, Ch. Engr., Railway Exchange Bldg., St. Louis; erect baggage and express room; 1 story; 121x34 ft.; Chas. Cunliff, Contr., St. Louis. (Previously noted.)

Stores.

D. C., Washington.—Fred B. Lincoln, 612 12th St. N. W.; alter store, 822 13th St. N. W.; \$6000; George T. Santmyers, Archt., 921½ New York Ave. N. W.; W. Preston, Contr., 9th and Mt. Vernon Sts. N. W.

Fla., Jacksonville.—Dr. H. A. Daniell; erect 2-story brick store and dwelling, Fisher St.; \$18,000; T. E. Floyd, Contr.

Md., Baltimore.—Feldman & Weinman; alter store front at 500 E. Baltimore St.; \$6000; Jacob V. Cohn & Bros., Contrs., 116 E. Baltimore St.

Va., Norfolk.—Travelers' Garage Corp., care W. C. Cobb, Virginia-Carolina Bldg.; erect 5 stores, Plume St.; 1 story; 18x65 ft.; P. C. Tunstall, Archt., Bank of Commerce Bldg.; Baker & Brinkley, Contrs., Dickson Bldg.

Warehouses.

La., Lake Charles.—Humble Oil & Refining Co., Houston, Tex., will erect corrugated-iron warehouse, 30x50 ft., and 3 storage tanks; Knapp & East, Contrs., Lake Charles.

N. C., Winston-Salem.—Liberty Storage Co. purchased Salem Iron Works on S. Liberty St. and will erect \$25,000 brick addition; Fogle Bros., Contrs.

Tex., Victoria.—Invader Oil & Refining Co., M. H. Stevenson, District Sales Mgr.; erect warehouse; D. L. Gibson, Constr. Engr., supervising work.

W. Va., McDonald.—New River Co. will erect 1-story, 90x122 ft. warehouse and 100x220-ft. machine shop; \$150,000; brick and steel; Austin Co., Contr., 111 Euclid Ave., Cleveland, Ohio.

Va., Norfolk.—Virginig Wharf & Warehouse Corp., Bank of Commerce Bldg.; erect \$40,000 warehouse; 1 story; 80x430 ft.; Neff & Thompson, Archts.; Nichols & Lindeman, Contrs.; both Seaboard Bldg.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Agricultural Implements.—Karam, Sher & Co., Patnari, Patnala State, India.—To represent mfrs. of agricultural implements.

Ammeters, etc.—Chief Signal Officer of Army, Washington, D. C.—Bids until Dec. 10 to furnish; 600 ammeters, 100-volt ammeters and 100 variometers; proposal 4867-3CP.

Bank Fixtures.—Hamilton National Bank, Hamilton, Tex.—Prices on bank fixtures.

Blacksmith Equipment.—J. B. Langford, Leesburg, Fla.—Interested in blacksmith equipment.

Boiler.—Lingo City Metal Works, Wilmington, N. C.—150 H. P. return tubular boiler with stack and fittings.

Boiler.—Gulf Machinery & Investment Co., New Orleans, La.—Second-hand 80 to 100 H. P. standard portable boiler on skids with all fixtures, either open or water front and bottom without patch; state make, factory, specifications, maximum steam pressure, location, weight and freight rates to Palestine, Tex.; price f. o. b. shipping point.

Brick.—Jas. D. Hay, St. Petersburg, Fla.—Prices on brick for \$35,000 apartment-house. (See Building Material.)

Boiler.—E. O. Smith, 672 Cecil Ave., Louisville, Ky., 100 H. P. boiler.

Bridge Construction.—Nacogdoches County Commrs., J. M. Marshall, County Judge, Nacogdoches, Tex.—Bids until Dec. 13 to build steel span bridges on State Highway No. 21 and 35; Lamar Acker, County Engr.

Bridge Construction.—Nacogdoches County Commrs., J. M. Marshall, County Judge, Nacogdoches.—Invite new bids for steel bridges; rejected previous bids; Lamar Acker, County Engr.

Bridge Construction.—State Highway Commission, Div. Office, Greensboro, N. C.—Bids until Dec. 17; bridges and culverts on Project 99-B; 241,780 lbs. reinforcing steel; plans, etc. with Div. Engr., Greensboro, and Bridge Engr., Raleigh.

Bridge Construction.—State Highway Commission, Div. Office, Greensboro, N. C.—Bids until Dec. 17; bridges and culverts on Project 99-B; 241,780 lbs. reinforcing steel; specifications, etc., on file at Raleigh, N. C.

Bridge Construction.—A. E. Loder, District Engr., Bureau Public Roads, United States Dept. Agriculture, 917 Bell Bldg., Montgomery, Ala.—Bids until Dec. 16; Rocky Bayou bridge and approaches on Valparaiso-Bolton road in Florida National Forest; 1000-ft. tim-

ber trestle and truss bridge, earth approaches; plans, etc., on file at Crestview, Bureau Public Roads, care H. E. Herrman, Perkins Bldg., Tallahassee, Fla.; L. L. Bishop, Forest Supvr., and County Clk., Crestview.

Bridge Construction.—Orangeburg County Commrs., Hugo S. Sims, Clk., Orangeburg, S. C.—Bids until Dec. 7; changed date from Nov. 20; reconstruct existing bridges and construct 2 bridges; 19,482 lbs. steel reinforcement; 26,760 lbs. structural steel; plans, etc., on file at Orangeburg with Ambrose Harwell, Div. Engr., Charleston, S. C., and State Highway Engr., Columbia, S. C.

Bridge Materials.—Rusk County Commrs., T. L. Watson, County Judge, Henderson, Tex.—Bids until Dec. 14; for delivering to Rusk county the following bridge materials; 7500 cu. yds. concrete aggregate, 9000 bbls. cement, 450,000 lbs. reinforcing steel, 250,000 lbs. structural steel; all bids to be addressed to County Judge.

Building Material.—Bryant & Huffman, Littlefield Bldg., Austin, Tex.—Prices on coarse aggregate for concrete structures, also upon creosoted bridge piling and bridge timbers.

Building Material.—Jas. D. Hay, St. Petersburg, Fla.—Prices on hollow fireproof tile and brick in carload lots f. o. b. St. Petersburg; also hardwood floors.

Building Materials, etc.—J. Frederick Cameron, Havana, Cuba.—To represent mfrs. of: Building materials; cement; sewing machines; dyes; trunks; suit cases; enamel, glass and hardware; laundry soaps; textiles of all kinds; office and household furniture; typewriters; ribbons and carbon paper; shears; toys; jewelry, etc.

Builders' Hardware.—Jas. H. Edmonds Co., 1408 Gray Ave., Houston, Tex.—Builders' hardware, including electric fixtures.

Builders' Supplies.—J. J. Disoway, Prest. Cotton States Belting & Supply Co., Atlanta, Ga.—To represent mfrs. of builders' supplies, including cement, lime, bricks, laths, etc.

Car.—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—All-steel mail and baggage car; consider wooden if up to date.

Cars.—Geo. B. Todd, 421 Union St., Norfolk, Va.—Two second-hand V-shaped narrow-gauge dump cars.

Chairs.—Conway Chamber of Commerce, Conway, S. C.—50 to 75 chairs.

Containers.—L. A. Pope, 113 Empire Bldg., Knoxville, Tenn.—Names and addresses mfrs. soap containers.

Conveyor.—Storage Supply Co., Asheville, N. C.—Coal conveyor; catalogs.

Conveyors.—E. O. Smith, 672 Cecil Ave., Louisville, Ky.—Conveyors.

Copper Cable.—Navy Dept., Bureau of Supplies and Accounts, Washington, D. C.—Bids until Dec. 3 to furnish copper cable for Naval Ordnance plant, Charleston, S. C.

Crank Shafts.—F. A. Owens, Mgr., 205 S. Poplar St., Charlotte, N. C.—Names and addresses mfrs. of crank shafts complete.

Creamery Equipment.—J. W. Haynes, Asheville, N. C.—Complete gravity system to handle 1500 to 2000 gals. milk daily.

Cutter (Paper).—Stewart-Brents Printing Co., 215 W. 4th St., Winston-Salem, N. C.—35-in. power paper cutter; new or rebuilt.

Cutters.—J. M. Sears, Mgr. Sears Mfg. Co., Lockhart, Tex.—Prices on cutters to cut beads from tires, ¾-in. straps from 2-ply rubberized fabric, and worn tires into 11-in. lengths.

Dies (Metal).—James F. Splain, 416 5th St. N. W., Washington, D. C.—Names and addresses mfrs. metal dies.

Ditching Machine, etc.—Seminole Nurseries Co., S. B. Ray, Secy., Orlando, Fla.—Prices on ditching machine, etc.

Dock.—Duval County Commrs., Frank Brown, Clk., Room 101 Courthouse, Jacksonville, Fla.—Bids until Dec. 10; construct shell dock at Mandarin, Fla.

Drykiln.—Southern Land & Lumber Co., 205 Alexander Bldg., Beaumont, Tex.—Drykiln.

Dry Kilns.—E. O. Smith, 672 Cecil Ave., Louisville, Ky.—Dry kilns.

Electrical Equipment.—C. D. Resler, Prest., Ozark Electric & Mfg. Co., Pineville, Mo.—Will receive bids on electrical equipment.

Electrical Equipment.—Big Heart Light & Power Co., Big Heart, Okla.—Prices on transformers, meters, lamps, pole line material, etc.

Electrical Equipment.—Henry B. Reardon, Jr., Norfolk, Va.—3-phase 3-wire 60-cycle 400 R. P. M. synchronous motor, capacity 2200 volts, 400 H. P., equipped with Amortisseur winding for self-starting, 3 bearings suitable to use with 48-in. wide belt, provided with side rails, exciter, starting panel, rheostat

and compensator; three 11,000-2200-volt 150 K. V. A. single-phase 60-cycle outdoor-type oil-cooled transformers; three 2200-110-220-volt 50 K. V. A. single-phase 60-cycle outdoor-type oil-cooled transformers; miscellaneous substation equipment.

Electrical Equipment.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C.—Receives bids until Dec. 22 for electric conduit and wiring in tunnels connecting units A, B, C, D and E-F; also extension of outside lighting at U. S. Hospital No. 32, 2650 Wisconsin Ave. (See Mechanical Equipment.)

Electric Fixtures.—See Builders' Hardware.

Elevator.—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C.—Bids until Dec. 27 to install electric freight elevator in postoffice at Charlotte, N. C.; drawings and specifications at office Mr. Wetmore.

Engine.—Sarasota Farms Co., L. L. Richardson, Prest., Sarasota, Fla.—25 to 40 H. P. gasoline engine; immediate delivery.

Engine.—E. O. Smith, 672 Cecil Ave., Louisville, Ky.—100 H. P. engine.

Engine.—Geo. B. Todd, 421 Union St. Norfolk, Va.—Second-hand narrow-gauge gasoline engine.

Engine.—Big Heart Light & Power Co., Big Heart, Okla.—Prices on 100 or 150 K. W. direct-connected oil unit, 3-phase, 60-cycle, 2300 volts.

Fabric-stripping Machines.—J. M. Sears, Mgr. Sears Mfg. Co., Lockhart, Tex.—Prices on fabric-stripping machines.

Filler (Traction Back).—T. J. Lane Equipment Co., Springfield, O.—Parsons or Austin caterpillar traction back filler with boom; known as one-man back filler.

Flooring.—Jas. D. Hay, St. Petersburg.—Prices on hardwood floors for \$35,000 apartment-house. (See Building Material.)

Folding Machine.—P. V. Doyle, Mgr. Doyle Publishing Co., Keyser, W. Va.—Prices on new or second-hand folding machine for publishing-house.

Gin (Moss).—Molsby Machinery Co., Jacksonville, Fla.—Names and addresses mfrs. moss gin to gin Spanish moss.

Glass Container.—Morrison, Patterson & Morrison, Wilmington, N. C.—To contract for mfr. of glass sterile toothbrush holder with wire attached top.

Glue.—H. & A. Wood Products Co., 724 S. 2d Ave., St. Petersburg, Fla.—White glue, good quality.

Heating Plant.—C. B. Verner, Tuscaloosa, Ala.—Prices on heating plant for Alabama Home for Feeble-Minded.

Kilns.—W. H. Meffert, Secy., Oak Hurst Lime Co., Box 478, Ocala, Fla.—Shaft kilns for 30-ton daily capacity lime plant.

Laundry Machinery.—C. R. Whitmore, Broadway, Va.—Names and addresses mfrs. steam laundry machinery.

Locomotive.—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Second-hand 75 to 100-ton freight locomotive; modern, good condition.

Lubricants.—Quartermaster's Dept., Marine Corps, Washington, D. C.—Bids until Dec. 9 to furnish: 15,000 lbs. transmission and differential grease; 11,000 lbs. cup grease; schedule 274; delivery to various depots and posts of Marine Corps. W. B. Lemly, Asst. Quartermaster.

Lumber.—State Bond Improvement Co., Jackson, Miss.—Bids until Dec. 3 on 500,000 B. M. ft. yellow pine; Theo. C. Link, Director Dept. of Public Works, Box 636.

Mechanical Equipment.—Treasury Dept.,

Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C.—Receives bids until Dec. 22 for mechanical equipment for hospital building Unit E-F, boiler-house, kitchen and laundry building, changes and additions in Unit D and in house for officer in charge; electric conduit and wiring in tunnels connecting Units A, B, C, D and E-F; also removal certain plumbing in Units B and C, and extension of outside lighting and power feeders of U. S. Hospital No. 32, 2650 Wisconsin Ave.; drawings and specifications from office Supervising Archt.

Mills (Pulverizing).—Box 1233, Joliet, Ill.—Sturtevant or Kent mill; also several swing hammer mills; medium size.

Mining Machinery.—W. J. Robinson, Mgr., Robinson Coal & Coke Co., Palmer, W. Va.—Mining mch. for 250-ton daily capacity mine.

Mining Machinery.—W. H. Meffert, Secy., Oak Hurst Lime Co., Box 478, Ocala, Fla.—Grinding, crushing and hydrating mch. for 30-ton capacity lime plant.

Motors.—Elkhorn Coleman Coal Co., Millard, Ky.—Prices on motors for power plant.

Paper.—P. V. Doyle, Mgr. Doyle Publishing Co., Keyser, W. Va.—Prices on newspaper paper per pound, ton lots.

Motors.—Box 2, Belle Meade, Va.—5 H. P. and 7 H. P. 110-volt D. C. motors, R. P. M.; state make, condition.

Nailing Machine.—Veneer Mfg. Co., W. A. Stilley, Mgr., Conway, S. C.—Prices and cut of 30 or 36 open back nailing machine.

Paper.—Walter D. Sullivan, Mgr., Baptist Banner Publishing Co., Box 702, Parkersburg, W. Va.—Prices on machine finish book paper, size 35x36, substance 25x35x32; about 1 ton monthly; can take care of 2½-ton shipments.

Paving.—City, G. B. Shepard, Director of Finance, St. Petersburg, Fla.—Bids until Dec. 6; grade, curb with granite curb and pave with vitrified brick, resetting curb on Second Ave.; paving 40-ft. wide; plans, etc., on file.

Paving.—Town, C. G. David, Secy., Pineville, La.—Bids until Dec. 7; pave Ragan Ave.; gravel; gutters and curbs; plans, etc., with W. H. Sylvester, Town Engr.

Pipe (Sewer).—City Comsn., John S. Bond, Chrmn., Room 13 City Hall, Jacksonville, Fla.—Bids until Dec. 10 to furnish: Carload 12-in. terra-cotta sewer pipe; f. o. b. Jacksonville; R. N. Ellis, City Purchasing Agent.

Piper (Sewer).—City Comsn., Jacksonville, Fla.—Bids until Dec. 10 to furnish car-load 12-in. terra cotta sewer pipe; f. o. b. Jacksonville; R. N. Ellis, Purchasing Agent, City Hall.

Planer.—Lingo City Metal Works, Wilmington, N. C.—Second-hand standard-make 4-side planer.

Planing Mill Equipment.—Southern Land & Lumber Co., 205 Alexander Bldg., Beaumont, Tex.—Planing mill equipment.

Plumbing.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C.—Receives bids until Dec. 22 for removal of certain plumbing in Units B and C at U. S. Hospital No. 32, 2650 Wisconsin Ave. (See Mechanical Equipment.)

Potato Digger.—Seminole Nurseries Co., S. B. Ray, Secy., Orlando, Fla.—Prices on potato digger.

Printing Machinery, etc.—Nariman T. D. Anklesaria & Co., Box 370, Parsi Bazar St., Fort Bombay, India.—To represent mfrs. of: Printing and lithographing mch.; 5x8 to 13x18 cutting machines, 24 to 36-in. stitching and perforating machines; silk dresses, kimonos and children's dresses; cut pieces and mill ends in silk.

Pump, etc.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until Dec. 23 to furnish: Oil-

handling pump; chain; wrought-iron pipe; pipe fittings; valves; water-closet tanks; steam traps; wire netting; glass; hose; rattan brooms; scrub brushes; extension ladders; caning; fiber mats; leather belting; rubber tires; towels; drinking glasses; silverware, etc. Blank forms and information (Circular 1425) on application to offices of: Panama Canal; Asst. Purchasing Agents at New York, New Orleans, San Francisco; United States Engr. offices throughout country.

Radiators, etc.—Jas. H. Edmonds Co., 1403 Gray Ave., Houston, Tex.—Steam radiators and radiator valves.

Road Construction.—Hemphill County Commrs., W. D. Fisher, County Judge, Canadian, Tex.—Bids until Dec. 13 to construct 14.44 mi. sand-clay road on Highway No. 4; Hess & Skinner, County Engrs., Southwestern Life Bldg., Dallas, Tex.

Road Construction.—El Paso County Commrs., E. B. McClintock, County Judge, El Paso, Tex.—Bids until Dec. 13 to surface 12.6 mi. Tabern Road, section State Highway No. 1; later to be paved with concrete; L. A. White, County Engr.

Road Construction.—Childress County Commrs., M. J. Hathaway, Judge, Childress, Tex.—Bids until Dec. 13; 10 mi. graded road, clay, sand and gravel; \$70,000 available; plans, etc., with County Clerk; Hess & Skinner, Engrs., Dallas, and State Highway Dept., Capitol Bldg., Austin, Tex.

Road Construction.—Duval County Commissioners, Frank Brown, Clk., Jacksonville, Fla.—Bids until Dec. 1; stump, grub and clear 2 mi. right of way, 30 ft. wide, on road from St. Augustine road to Julington Creek.

Road Construction.—State Highway Commission, Div. Office, Greensboro, N. C.—Bids until Dec. 17; improving 3.71 mi. road between Mt. Gilead and Wadeville; Federal Aid Project 33; 8750 cu. yds. top-soil surfacing; specifications, etc. on file at Raleigh, N. C.

Road Construction.—Highway Dept., Board State Engrs., 332 Maison Blanche Annex, New Orleans, La.—Bids until Jan. 3; 5.91 mi. New Orleans-Hammond Highway, Section A-1; 15.19 mi. New Orleans-Hammond Highway, Section C, and 9.24 mi. New Orleans-Mississippi Highway, Section B; plans, etc., on file; Duncan Buie, State Highway Engr., New Orleans.

Road Construction.—Levy County Commrs., Bronson, Fla.—Will invite bids on 22 mi. hard-surfaced road from Alachua county line to Marion county line; graded road 24 ft. wide; waterbound macadam.

Road Construction.—State Highway Commission, Columbia, S. C.—Bids opened next year; 15 mi. Dorchester-Reevesville road; Chas. H. Moorefield, State Highway Engr., Columbia.

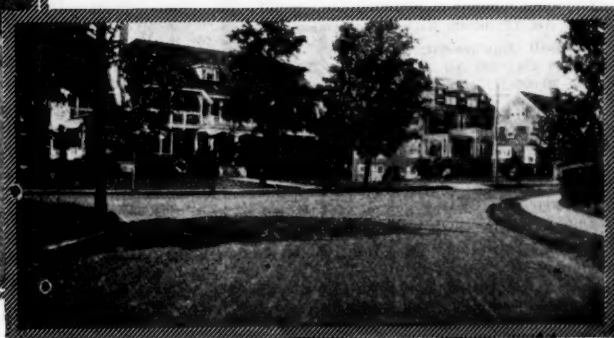
Road Construction.—Bienville Parish Police Jury, D. M. White, Prest., Sparta, La.—Bids until Dec. 20; 14 mi. gravel road, Ward C; Geo. R. Wilson, Engr., Arcadia, La.

Road Construction.—Orangeburg County Commrs., Hugo S. Sims, Clk., Orangeburg, S. C.—Bids until Dec. 7; changed data from Nov. 20; 12,722 mi. Columbia-Savannah Highway; 30,403 cu. yds. sand-clay surfacing; bridges; plans, etc., on file at Orangeburg, with Ambrose Harwell, Div. Engr., Charleston, S. C., and State Highway Engr., Columbia, S. C.

Road Construction.—Good Roads Comsn., Kewanee-Toomsuaba Special Road Dist., Meridian, Miss.—Bids until Dec. 7; Kewanee-Toomsuaba road; 33,000 cu. yds. earth excavation; plans, etc., with Chancery Clerk.

Road Filling.—Street Dept., Charleston, S. C.—Bids until Dec. 21; furnish and haul

(Continued on Page 148.)



Sheffield Road, Winchester, Mass., a macadam road kept in perfect condition by an occasional treatment with "Tarvia-R"

New York	Chicago	Philadelphia	Boston	The <i>Barrett</i> Company			Pittsburgh	Detroit	New Orleans	Birmingham
Kansas City	Minneapolis	Dallas	Nashville	St. Louis	Cleveland	Cincinnati	Peari	Atlanta	Duluth	Milwaukee
Bangor	Washington	Johnstown	Lebanon	Salt Lake City	Seattle	Youngstown	Toledo	Columbus	Richmond	
Lafayette	Waltham	Elizabeth	Buffalo	Syracuse		Baltimore	Omaha	Houston	Denver	
Jacksonville										
THE BARRETT COMPANY, Limited:				Montreal	Toronto	Winnipeg	Vancouver	St. John, N. B.	Halifax, N. S.	

7000 cu. yds. filling for use on boulevard driveway. Address The Mayor.

Rock.—State Road Dept., Forest Lake, Chrmn., Tallahassee, Fla.—Bids until Dec. 10; 10,000 to 20,000 tons Florida lime rock, suitable for use as rock base, and 8000 to 10,000 tons slag or flint rock, to be used in bituminous macadam surface; rock or slag to be delivered on S. A. L. Ry., Lake City, Watertown, Mt. Carrie and Olustee; specifications, etc., on file.

Roofing, etc.—Construction Quartermaster, Proving Ground, Aberdeen, Md.—Bids until Dec. 15; replace 14,940 sq. ft. corrugated iron with galvanized iron and painting 25,700 sq. ft. roof of temporary artillery storage warehouse No. 12; plans with Quartermaster.

Sawmill Equipment.—Southern Land & Lumber Co., 205 Alexander Bldg., Beaumont, Tex.—30,000-ft. capacity sawmill equipment.

Saws, etc.—Mehr Din, Ghragh Don, Turner, P. O. Nowlakh, Brandreth Road, Lahore, India.—To represent mfrs. of saw, lathes, etc., to saw timber and iron.

Sewer System.—C. B. Verner, Tuscaloosa, Ala.—Prices on sewer system for Home of Feeble-Minded.

Sewerage.—United States Engr. Office, Customhouse, Norfolk, Va.—Bids until Dec. 16; construct reinforced concrete conduit in Appomattox River, Va., at Petersburg; information on application.

Sewing Machines, etc.—B. R. Bhalla & Co., Amritsar, India.—To represent mfrs. of sewing, knitting and envelope-making machines; piece goods and sundries.

Shovel.—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Standard-gauge steam shovel with rock dipper; Marion models 76 or 78.

Soap Machinery.—L. A. Pope, 113 Empire Bldg., Knoxville, Tenn.—Names and addresses mfrs. soap mchy.

Steel Plates, etc.—Panama Canal, General Purchasing Officer, Washington, D. C.—Bids until Dec. 18 to furnish: Steel plates; copper; shackles; bolts; nuts; rivets; taps; door locks; plate glass; glass cutters; fire brick; soap and polish; furnace cement; gold leaf; sperm oil; wood alcohol; oxalic acid; alumina sulphate; calcium carbide; graphite; bicarbonate of soda; pitch tar; aluminum paint; metallic brown; locomotive black; varnish; chalk; bond paper; bristol board and paper towels. Blank forms and information (Circular 1424) on application to offices of: Panama Canal; Asst. Purchasing Agents at New York, New Orleans, San Francisco; United States Engr. offices throughout country.

Stump Puller.—Seminole Nurseries Co., S. B. Ray, Secy., Orlando, Fla.—Prices on stump puller.

Switchboards, etc.—Navy Dept., Bureau Yards and Docks, Washington, D. C.—Bids until Dec. 22; install switchboards for 3 substations at Naval Ordnance Plant, South Charleston, W. Va.; Spec. 4308.

Textile Machinery, etc.—A. S. Shaw Co., Dinapore, Cantt, India.—To represent mfrs. of knitting and spinning machines for hosiery; also husk machinery for small grain.

Tile.—Jas. D. Hay, St. Petersburg, Fla.—Prices on hollow fireproof tile for \$35.00 apartment-house. (See Building Material.)

Tile and Brick Machines.—E. O. Smith, 672 Cecil Ave., Louisville, Ky.—Combined brick and tile machines.

Tractor.—Seminole Nurseries Co., S. B. Ray, Secy., Orlando, Fla.—Prices on tractor.

Tubes (Boiler).—City Comsn., Jacksonville, Fla.—Bids until Dec. 10 to furnish 100 4-in. x 18-ft. No. 8 or No. 9 gauge seamless boiler tubes either hot or cold rolled; f. o. b. cars

Jacksonville; R. N. Ellis, Purchasing Agent, City Hall.

Water Wheels.—C. D. Resler, Prest., Ozark Electric & Mfg. Co., Pineville, Mo.—Will receive bids on water wheels.

Wires (Copper).—Board Comms. Port New Orleans, Suite 200, New Orleans, La.—Bids until Dec. 14; furnish rubber-covered weatherproof and bare copper wires for Board's coal-handling plant; list of materials obtained from Supvrs. of Purchases, Board Comms. Port New Orleans, No. 1, Canal St.

Wireworking.—See Glass Container.

Wireworking.—James F. Splain, 416 5th St. N. W., Washington, D. C.—To contract for mfr. wire novelties.

Wooden Cases.—Eagle Bottling Works, 312 Scanlan Bldg., Houston, Tex.—Prices on wooden cases or crates.

Woodwork.—J. B. Langford, Leesburg, Fla.—Interested in woodwork.

Woodworking Machinery.—New Canton Mills Co., New Canton, Va.—Prices on 36x48 circular saw, medium speed matcher, etc.

Woodworking Machinery.—H. and A. Wood Products Co., 724 S. Second Ave., St. Petersburg, Fla.—Woodworking mchy., including variety and special lathes, electric glue pots, band and table saws, blades, etc.

Railroad Construction

Railways.

Okla., McAlester.—The Pittsburgh County Railway Co. denies the recent press report that it planned to build an extension to Fort Smith, Ark., saying that it is without foundation, and that the present construction program is quite small, being limited to minor needs. J. C. Chesnut is Gen. Mgr.

Tex., Graham.—James A. Hinson of Denton, Tex., is reported awarded contract for work out of Graham on the extension of the Wichita Falls & Southern Railway between Newcastle and Breckenridge, and Harrelson & Cunningham have the contract for yards at Graham. Frank Kell, Wichita Falls, Tex., is Gen. Mgr.

Tex., San Antonio.—Survey is reported begun for the proposed San Antonio, Rock Springs & Western Railroad from San Antonio via Bandera to Rock Springs, Tex., about 125 mi. W. L. Williams of San Antonio, and others interested, including Col. L. P. Featherstone of Longview, Tex.

Street Railways.

Ala., Anniston.—It is announced that the Alabama Power Co. will reconstruct the Noble Street line at a cost of about \$40,000. R. A. Mitchell, N. P. Sterne and others.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

In Their New Plant.

The Lookout Boiler & Manufacturing Co., Chattanooga, Tenn., manufacturers of boilers, tanks, towers, standpipes, steel plate and sheet metal work, are now occupying their new plant in North Chattanooga, the new industrial center which is only about 15 minutes' ride from the center of the city. The site comprises five acres, with a track frontage of 561 feet. The main building, which is 95x160 feet, is of steel construction throughout, and is built so that additional units may be added at will. The heavy work is handled by a traveling crane of 10 tons capacity, and all the machinery is of the latest design and electrically driven. The office building is 24x30 feet and specially adapted to their needs. They point with pride to the fact that they have sold their product all over the United States. The officers are: H. H. Peek, president; John Stagmeyer, vice-president; James S. West, treasurer and superintendent; James McGinn, secretary.

Large Sprinkler System Installed.

The St. Louis office of the United Equipment Co.—the home office being at Knoxville, Tenn.—recently closed a contract to equip with automatic sprinklers additions to the plant of the Memphis Terminal Corporation at Memphis, Tenn. It is stated that the Memphis Terminal Warehouse sprinkler system is the second largest in the world, and each day it is inspected by a man who does nothing else, and every evening his report is filed at headquarters. This inspection assures that no valves are turned off, that no pipes are frozen and that the plant is safe from fire.

To Engage in Research Work.

Charles Lyman Rand, secretary and chief chemist of the Mitchell-Rand Manufacturing Co., New York, manufacturers of electrical insulation specialties, waterproofing prod-

ucts, etc., has relinquished his duties as factory superintendent to devote his entire time to important research work in the chemical and allied fields for his company. He will be succeeded as factory superintendent by Joseph T. Lawrence, chemical engineer, formerly associated with E. I. du Pont de Nemours & Co. Mr. Rand was graduated A.B. at Cornell University in 1904 and for a year was instructor in chemistry there. Later he was with the Du Ponts, still later with the analytical laboratories of the General Chemical Co., and in 1906 became secretary and chief chemist of the Mitchell-Rand Mfg. Co. He is an authority on wax, pitch and asphalt composition work. He is a member of the American Chemical Society and several other kindred societies.

Sales Manager Appointed.

Wm. G. Toland has been appointed general truck sales manager for Hare's Motors, Inc., 16 West 61st street, New York city. This organization recently took over the Kelly-Springfield Motor Truck Co., at Springfield, O., the sales for which will be in charge of the new manager.

Removal and Enlargement.

The Cantol Wax Co., successor to the West Texas Products Co., San Antonio, Tex., announce their removal December 1 to Bloomington, Ind., where they will have a larger factory and a more central location for the manufacture and distribution of their products, all orders now to be shipped from the new plant. It is stated that this move was necessary because 75 per cent of the company's business is in the Central West and East; moreover, the rapid increase of their business necessitated the larger quarters and increased facilities. The Cantol Wax Co. is

(Continued on Page 150.)

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

South's Buying Power Rests on Solid Basis

Many business men who are not familiar with the South's growth think of it only as a cotton-producing section.

It does produce a lot of cotton—60% of the world's supply, and valued at over \$2,000,000,000. But this year it will raise more corn than cotton, and its diversified farm products exceed by more than three times the value of its cotton.

This tells of the South's amazing agricultural expansion.

But what about the South's growth industrially?

The South has one-quarter of the country's coal reserve, and is mining over 150,000,000 tons annually, and making more than 7,500,000 tons of coke.

The South has seven-tenths of the country's forested area, and is cutting over 15,000,000,000 feet of lumber a year.

The South has one-third of the country's iron-ore deposits, and is producing yearly over 3,500,000 tons of pig-iron.

The South has a wide variety of mineral deposits that are being developed at an increasing rate, and these amounted in value in 1919 to \$1,350,000,000.

All the bauxite, barytes, fuller's earth, sulphur and phosphate rock produced in the country come from the South, and half of our natural gas, petroleum and gasoline.

No broad-visioned business man can study these basic facts without realizing that the South's buying power rests upon a solid foundation of diversified resources and accomplishments, and from this must come an ever-increasing demand for all kinds of machinery, equipment and supplies.

Over a thousand advertisers furnish the convincing evidence that the MANUFACTURERS RECORD, with a prestige of nearly forty years devoted to the South, is the medium through which to develop and sustain your Southern sales.

Additional information, with advertising rates and circulation statement, will be gladly furnished

Manufacturers Record

BALTIMORE

Exponent of America

MARYLAND

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incorporated with \$200,000 capital stock, especially to increase and extend the business. The main products will be for the present "Cantol" wax, wax belt dressing, moulding wax and other wax compounds known by this name, and also "Apimela" wax, a bees-wax substitute.

Merger Announced.

It is announced that the interests of the Long Powder & Supply Co., the Ashcraft Transfer Co. and the Empire Powder Corp. have consolidated, and that the manufacturing, sales and distributing organizations are now combined for the betterment of the product and service. They will hereafter operate as the Union Explosives Co., with general offices 601-610 Goff Bldg., Clarksburg, W. Va., and factory at LeRoy, N. Y. J. Edgar Long is president and treasurer, John

A. Washington, executive vice-president and secretary; George P. Jones, vice-president in charge of operations, and H. B. Cooper, vice-president in charge of sales.

Big Plant to Make Sectional Steel Buildings.

The Steel Fabricating Corporation of Harvey, Ill., is building a very large new plant at Michigan City, Ind., to provide for the greatly increasing demand for "Stefco" sectional steel buildings. These structures should not be confused with the light portable type of buildings, as they are designed according to the best engineering practice, and are built for strength and service. The trusses supporting the roof are of the standard Fink type, hot-riveted throughout, the same as are used in the heaviest engineering jobs, such as skyscrapers and bridges. These trusses not only support the

roof, but will carry extra overhead loads, such as line-shafting for running machinery, or trolley conveyors for distributing materials around the factory, up to three tons, without additional bracing. The side walls are of heavy galvanized steel and are hot-riveted every 8 inches, another engineering feature of this construction, which means strength, rigidity and permanence. In the West and Southwest oil fields, noted as cyclone areas, these buildings have stood through every storm. Besides, they are absolutely fireproof, and while cheap, reduce insurance rates to such an extent that the saving in insurance alone justifies even a higher price for them. The \$500,000 factory which is now well under way at Michigan City is to cover more than two city blocks, and is going along on sched-

(Continued on Page 152.)

To The Readers of
The Manufacturers Record

ADDITIONAL TAX BURDENS - ?

November 4th, 1920.

Have you overpaid your tax? Have you paid a larger percentage than other corporations in similar business? Have you received an assessment for additional tax for the years 1917, 1918 and 1919? If so, you may be entitled to relief under the remedial provisions of the law and it is unquestionably to your advantage to make all adjustments before the Government discovers errors. It makes your case one hundred (100%) percent stronger.

Have you filed claims for Rebates-Refunds? Are you fully satisfied with the status of said claims? Would not personal supervision and follow up before Department insure prompter settlement?

We maintain a Legal Department in Washington, D. C., and have associated with us Mr. Ellis C. Johnson, twenty-five (25) years, General Counsel, Legal Advisor and Solicitor of the Bureau of Internal Revenue. Mr. Johnson has successfully handled more claims before the Department than any man in the country. Mr. George B. Furman and Mr. Johnson give their attention to the preparing and follow up of all our claims.

As Ex-Government Officials, with years of experience, with ability to see, and capacity to analyze the Tax Laws, Rules and Regulations from the Washington Viewpoint, we offer a most unique service, a service needed by the Taxpayers, to the end that they obtain every deduction permissible under the Law. Allow us to review your Federal Income and Excess Profits Tax Returns.

Hoping that we shall be favored with your valued business, which if entrusted to us shall receive our prompt, careful and most thorough attention, we are,

Yours very truly,
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BONDS
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School
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THE J. F. W. DORMAN COMPANY
BALTIMORE, MD.

uled time. A half mile of railroad switches in and around the plant have been installed. Steel erection has begun by the Indiana Bridge Co. of Muncie, and the brick side walls, requiring more than a million brick, to be furnished by another Indiana concern, the Riscay Brick Co. of Michigan City, and the roof construction will follow promptly. Meanwhile the erection of the general office building, the boiler-house, with its 175-foot stock, to be built by the Hoosier Stack Construction Co. of Indianapolis, Ind., from the manufacture by the Clay Products Co. of Brazil, will keep pace with the rest of the construction. W. H. Johnson & Son Co. of Indianapolis are installing the heating plant, and Powell & Dorste of Anderson are furnishing the electric service throughout the entire plant. In all, more than 400 cars of materials, or ten trainloads, will be required.

Trade Literature.

Preservation of Wood.

Two folders issued by the Barrett Company, New York, and interestingly illustrated relate to the use of Carbosota for the preservation of wood roof decks and also of mine timbers. Other advantageous applications of this treatment to wood when used for railway ties, cars, barges and other craft are similarly described. Carbosota creosote oil is described as "a highly refined and specially processed coal-tar creosote, particularly adapted to surface treatments and the open-tank process." It is applied both hot and cold.

Material-Handling Machinery.

General Bulletin 5001 of the Franklin Moore Company, Winsted, Conn., gives a brief description of the line of material-handling machinery made at this plant, accompanied by illustrations of the several types. Particular attention is directed to the smaller sizes, specialized for active service in moving large numbers of light loads when small parts and light, bulky materials are handled in quantities. This bulletin will soon be followed by a series of handbook bulletins describing electric hoists, chain hoists, single and double I-beam cranes, trolleys, etc.

Dial Scales.

Two fine, large folders presenting and illustrating the advantages of the Kron dial scales have been issued by the American Kron Scale Co., 430 East 53d St., New York. These scales have large dials with distinct figures, which may easily be read at a distance, and their use, it is asserted, reduces the chances of error to a minimum. One of the folders contains 15 pictures, showing as many different installations in factories, warehouses, freight stations, etc. The Southern representatives of these products are the J. Kirk Rowell Company, 716-17 Atlanta Trust Building, Atlanta, Georgia.

All About Southern Pine.

"Southern Pine: What It Is and What It Is Used For" is the title of a new pamphlet which the Southern Pine Association of New Orleans are distributing to architects, engineers, builders and others interested in acquiring a general knowledge of this product and its numerous uses. It is a very valuable publication which will be generally appreciated. The information which it presents is interesting and complete. There are, in addition to the descriptive matter, sundry diagrams and tables, including diagrams illustrating rules of the U. S. Forest Service for grading Southern pine timbers, besides tables

showing results of tests, recommended working stress, lawful working stress in various cities, etc. There are several excellent illustrations.

Marine Boilers.

Catalog No. 51 of the Foster Marine Boiler Corporation, 111 Broadway, New York, is a fine publication of 64 pages copiously illustrated in a superior manner and giving a full description of the Foster boiler, including data from tests, these being accompanied by helpful suggestions for installing and operating. The opening chapter is devoted to a description of the evolution of modern marine boilers, this being immediately followed by a chapter about the Foster marine water-tube boiler, which is called "the latest development of the cross-drum straight-tube type that has been used successfully for many years in both naval and merchant marine service." It is further remarked that over 75 per cent of the successful water-tube boilers in merchant marine service are of this general type; also that this design is based upon many years of marine boiler experience. The book is a very notable contribution to marine boiler literature.

The Oil Conservator.

The construction and function of the conservator type of tank for power transformers, which the General Electric Co. has perfected as a standardized product, is described in Bulletin No. 49766 issued by that company. It consists of an auxiliary tank connected by suitable piping to the main tank and mounted integrally with it. The main tank is completely filled with oil, while the auxiliary tank provides for oil expansion. It is equipped with a breathing device and a pump from which any water condensation may be drawn off without disturbing the main tank. The arrangement eliminates the air space above the oil and isolates the hot oil and insulation from the surrounding air. The advantages of the conservator tank as described are: First, it eliminates "breathing" and moisture condensation in the main tank, thus preserving the original insulating value of the oil. Second, it avoids explosions due to ignition of a mixture of air and gas formed from hot oil. Third, it protects the oil from "sludging," common to all transformers to some extent after prolonged operation. Fourth, it preserves the insulation. The bulletin shows photographs of conservator tanks and of installations.

Financial News

New Financial Corporations.

Fla., Lakeland.—Polk County Trust Co. organized; capital \$300,000; A. H. De Vane, Pres., Lakeland; T. L. Wilson and E. L. Mack, V.-Ps.; J. L. Davis, Secy.-Treas. and Cash.; all Bartow, Fla. (Supersedes recent item.)

Ga., Valdosta.—Merchants' Bank of Valdosta chartered; capital \$100,000; H. Y. Tillman, Pres.

Md., Baltimore.—Morgan Investment Co. of Baltimore inceptd.; 900 N. Eutaw St.; capital \$100,000; Lewis E. Williams, Wm. Lewis, Truly Hatchett.

N. C., Peachland.—Bank of Peachland organized; capital \$11,000; L. C. Broom, Pres.; W. B. Phifer, Cashr. (Supersedes previous item.)

Okla., Bangs.—First National Bank of Bangs

organized; capital \$25,000; W. P. Eads, Pres.; L. G. Porter, V.-P.; A. R. Moore, Cash.

Okla., Muskogee.—Industrial Loan & Investment Co. inceptd.; capital \$100,000; Elmer C. Trueblood, Harris L. Danner; both Oklahoma City; W. C. Thomas, Kansas City, Mo.

Okla., Tulsa.—First National Bank of Tulsa organized; consolidation of First National Bank and Union National Bank; capital \$1,000,000; surplus \$500,000; G. R. McCullough, Pres.

S. C., Florence.—Farmers & Mechanics' Bank organized (consolidation of City Savings Bank and Farmers & Mechanics' Bank), capital \$250,000; surplus \$50,000; deposits \$600,000.

Tenn., Memphis.—Mutual Home & Investment Assn. chartered; capital \$50,000; F. J. Searcy, A. P. Bentley, W. S. Searcy.

Tex., Clifton.—Clifton National Bank chartered; capital \$25,000.

Tex., Cresson.—First State Bank has been chartered with \$10,000 capital; E. L. Etier, Pres.; T. I. Brothers, Cashr.

Tex., Jefferson.—Rogers State Bank & Trust Co. has been chartered with \$50,000 capital; B. F. Rogers, Pres.; H. L. Rogers, Cashr.

Tex., Mexia.—First National Bank of Mexia has organized with \$750,000 capital.

Tex., Quinlan.—First National Bank organized; capital \$25,000; surplus \$10,000; J. W. Whitworth, V.-P.; J. E. Laney, Cashr.; both Quinlan, Tex.; C. O. Laney, Pres., 416 Wilson Bldg., Dallas, Tex. (Supersedes recent item.)

Va., Bristol.—Union Trust Bank organized; S. H. Thompson, Pres.; J. H. Faucette, V.-P.; G. P. Daniel, Secy.-Treas. (Supersedes recent item.)

Va., St. Charles.—Bank of St. Charles organized; G. W. Blankenship, Cashr.

W. Va., Wheeling.—W. P. Oxtoby Co. chartered; capital \$100,000; A. P. Oxtoby, Jr., Edgar C. Glass; both Wellsburg, W. Va.; Douglas Vass, Wheeling.

New Securities.

Ala., Cullman.—School.—City, M. L. Robertson, Mayor, has sold \$40,000 of 7 per cent \$1000 denomination 10-yr. bonds, dated Dec. 1 to Steiner Bros., Birmingham, Ala., at 94. (Lately noted inviting bids.)

Ala., Elba.—Road.—Coffee County Commrs. have sold \$16,000 of State road bonds to Elba Bank & Trust Co.

Fla., Bronson.—Road.—Levy County Commrs. will invite bids on \$100,000 of 6 per cent bonds in January.

Fla., Daytona.—Street and Drainage.—City, Geo. F. Couch, Clk.; bids until Dec. 8; \$450,000 of 5 per cent \$1000 denomination serial bonds, dated Nov. 1. (Supersedes recent item.)

Fla., Gainesville.—Road.—Alachua County Board Trustees Special Road and Bridge Dist. No. 1; sold \$310,000 of 5½ per cent 20-yr. bonds, dated Jan. 1, to Jas. T. McCarthy.

Fla., Key West.—Street and Sidewalk.—City, Board Public Works; sold \$100,000 street and \$50,000 sidewalk bonds.

Fla., Miami Beach.—Fire Station and Hospital.—City, J. F. Canova, Clk.; sold \$175,000 bonds to Fidelity Bank & Trust Co. at 97.80.

Fla., Palmetto.—Dock and Pile Construction.—City, W. E. Mann, Clk., has rejected bids on \$25,000 of 6 per cent \$500 denomination 30-yr. bonds, dated Nov. 1. (Lately noted inviting bids.)

Fla., Pensacola—School.—Escambia County Board of Instruction, A. S. Edwards, Supt.; bids until Dec. 11; \$500,000 of 6 per cent semi-annual \$1000 denomination bonds, dated Jan. 1, of Special Tax School Dist. No. 16. (Superseades recent item.)

Fla., Perry—Street, Sewer and Drainage.—City, J. R. Jackson, Clk., has sold \$110,000 bonds to W. L. Slayton & Co., as follows: \$50,000 street, \$45,000 sewer and \$15,000 drainage. (Lately noted inviting bids.)

Fla., West Palm Beach—Road.—Palm Beach County Commrs.; issue \$600,000 bonds.

Ga., Abbeville—Water.—Wilcox County Commissioners; sold \$10,000 of 6 per cent semi-annual \$500 denomination 19½-yr. bonds, dated July 1, to Trust Co. of Georgia at \$5. (Previously noted inviting bids.)

Ga., Atlanta—Water.—City, W. E. Dunn, Chrmn. Water Board; issue \$3,000,000 bonds; proposed.

Ga., Dearing—School.—Dearing School Dist., O. Howard, Secy.-Treas.; vote on bonds.

Ga., Decatur—School.—School Board has voted \$50,000 bonds.

Ga., Decatur—School and Water.—Town, H. H. Ehle, Clk.; bids opened; \$150,000 of 5 per cent bonds as follows: \$100,000 school and \$50,000 water.

Ga., Dublin—Bridge.—Laurens County Commissioners, J. H. Witherington in charge; issued \$500,000 bonds; bids until Dec. 15; \$300,000 of 5 per cent \$1000 denomination 30-year bonds, dated June 1. (Lately noted.)

Ga., Gainesville—Road.—Hall County Commissioners Roads and Revenues, F. T. Davis, Commr.; bids until Dec. 6; \$40,000 of 5 per cent semi-annual \$1000 denomination bonds.

Ga., Louisville—School.—Louisville School Dist.; voted \$100,000 bonds.

Ga., Sandersville—Electric and Fire Engine. City; sold \$40,000 improvement bonds for \$36,000.

Ky., Owensboro—School.—Board of Education, J. J. Sweeney, Prest.; vote Jan. 15 on \$300,000 bonds; changed date from Dec. 4. (Lately noted to vote.)

Ky., Owensboro—Street.—City, Mayor Calhoun; issue \$40,000 bonds; proposed.

Ky., Walton—Electric.—City; issued \$10,000 bonds. Address The Mayor.

La., Shreveport—Improvement.—City, Mayor Ford; bids in January or February on \$1,250,000 bonds. (Lately noted voting.)

Md., Elkton—Road.—Cecil County Commrs., Philip M. Grove, Clk.; sold \$15,000 of \$50,000 bonds; proposed. (Lately noted inviting bids.)

Miss., Bioloxi—Street.—City Comsn. have sold \$350,000 bonds to Caldwell & Co., Nashville, Tenn. (Lately noted voting bonds.)

Miss., Grenada—School.—City, W. S. P. Doty, Mayor, will receive bids on \$125,000 of 6 per cent semi-annual bonds.

Miss., Macon—Street, Light and Water.—City, J. J. Scott, Clk.; voted \$43,000 bonds as follows: \$18,000 street and \$25,000 light and water bonds. (Lately noted to vote.)

Miss., Oxford—Electric.—City, E. E. Temple, Mayor; issued \$4100 of 6 per cent semi-annual \$500 denomination bonds, dated Dec. 1. (Lately noted voting bonds.)

Miss., Union—Water.—City; vote on bonds; proposed. Address The Mayor.

Miss., Waynesboro—Road and School.—Wayne County Supr.; bids until Dec. 6; \$210,000 of 6 per cent semi-annual bonds as follows: \$50,000 Mulberry Road Dist.; \$75,000 Clara Road Dist.; \$75,000 Waynesboro Road Dist., and \$10,000 Clara School Dist.

Miss., Winona—Electric and Water.—City, J. O. Staples, Mayor, has voted \$60,000 of 6 per

cent serial 20-year bonds, dated Jan. 1; bids until Jan. 4. (Lately noted to vote.)

Mo., Blairtown—Electric.—Town, D. E. Shepperd, Mgr.; voted \$4900 bonds. (Lately noted to vote.)

Mo., Springfield—School.—Springfield Board of Education, L. F. Pipkin, Prest.; bids on \$600,000 of 5 per cent semi-annual \$1000 denomination bonds. (Previously noted.)

Mo., Springfield—School.—School Board has sold \$600,000 of 5 per cent semi-annual 5-15-yr. bonds to Bank of Commerce.

N. C., Ashboro—Road and Bridge.—Randolph County Commrs.; sold \$150,000 of 6 per cent 21½-yr. bonds, dated Oct. 1, to Seasongood & Mayer, Cincinnati, O., and Sidney Spitzer & Co., Toledo, O., at 101.05. (Lately noted inviting bids.)

N. C., Belmont—Street.—Town; invite bids on \$50,000 of 6 per cent \$500 denomination 20-yr. serial bonds, dated Oct. 1. Address The Mayor.

N. C., Canton—School.—Board of Education; vote on \$150,000 bonds.

N. C., Hickory—Sewer.—City; sold \$30,000 bonds to Hanchett Bond Co., Chicago, at par and accrued interest. (Lately noted.)

N. C., Lumberton—Road and Bridge.—Robeson County Commrs.; issued \$300,000 of 5½ per cent semi-annual \$1000 denomination bonds.

N. C., Mooresville.—School Board Trustees, J. P. Mills, Chrmn., has sold \$50,000 of 6 per cent semi-annual 19-year bonds. (Lately noted inviting bids.)

N. C., Raleigh—Water.—City, J. B. Bray, Commr. Public Works; issue \$50,000 bonds.

Okla., Collinsville.—Town; issued \$17,000 of 6 per cent \$1000 denomination bonds. Address The Mayor.

Okla., Chandler—School.—Lincoln County, Consolidated School Dist. No. 2, has sold \$20,000 of 7 per cent 20-year bonds to Taylor-White Co., Oklahoma City, Okla.

S. C., Greenwood—Sewer and Street.—Town, A. McD. Singleton, Clk.; bids until Dec. 15; \$200,000 of 5½, 5½ or 6 per cent semi-annual 20-year bonds as follows: \$100,000 sewer and \$100,000 water.

S. C., Greer—School.—Board Trustees Greer School Dist.; vote on \$50,000 bonds.

Tenn., Columbia—School.—Maury County Commrs., Supt. Graham; bids on \$75,000 or \$80,000 bonds.

Tex., Abilene—Sewer.—City; issued \$100,000 bonds. Address The Mayor.

Tex., Bonham—School.—Fannin County Commrs.; registered \$1600 and \$2100 of 5 per cent 5-20-yr. bonds, dated Nov. 19, of Common School Dist. Nos. 129 and 130.

Tex., Brenham—Road.—Washington County Commrs.; issue \$1,500,000 bonds.

Tex., Clarendon—School.—Donley County Commrs.; registered \$3000 of 5 per cent 10-20-yr. bonds, dated Nov. 17, of Common School Dist. No. 3.

Tex., Decatur—School.—Wise County Commissioners; registered \$3500 of 5 per cent 5-40-yr. bonds, dated Nov. 19, of Common School Dist. No. 9.

Tex., Freeport—Levee.—City, E. C. King in charge; voted \$123,000 of 6 per cent semi-annual \$500 denomination serial bonds, dated Feb. 10; \$7000 due Feb. 10, 1922; like sum due and payable Feb. 10 of each succeeding year for 19 yrs.; bids until Jan. 1. (Lately noted to vote.)

Tex., Gainesville—School.—Cooke County Commrs.; registered \$2000 of 5 per cent 5-20-yr. bonds, dated Nov. 17, of Common School Dist. No. 13.

Tex., Galveston—Causeway.—Galveston County Commrs.; issue \$229,000 warrants.

Tex., Grand View.—Grand View Independent School Dist.; registered \$90,000 of 5 per cent 40-yr. bonds.

Tex., Groesbeck—Road.—Limestone County Commrs., J. E. Bradley, County Judge, will vote Dec. 11 on \$75,000 bonds of Road Dist. No. 11.

Tex., Groveton—School.—Trinity County Commrs.; registered \$1100 of 5 per cent 5-20-yr. bonds, dated Nov. 19, of Common School Dist. No. 12.

Tex., Hillsboro—Market.—City; voted \$15,000 bonds. Address The Mayor.

Tex., Hillsboro—School.—Hill County Commissioners; registered \$3000, \$3000, \$1000, \$1800 and \$3000 of 5 per cent 5-10-yr., 5-20-yr., 5-10-yr., 5-20-yr. and 5-20-yr. bonds, dated Nov. 19, of Common School Dist. Nos. 5, 23, 26, 76 and 120.

Tex., Hillsboro—School.—Hill County Common School Dist. No. 19; registered \$6500 of 5 per cent 5-20-yr. bonds.

Tex., Mount Pleasant—School.—Titus County Commrs.; registered \$2000 and \$1000 of 5 per cent 1-20-yr. bonds, dated Nov. 15, of Common School Dist. Nos. 30 and 32.

Tex., Lewisville—School.—Lewisville School Dist.; sold \$40,000 bonds.

Tex., Port Arthur—Water.—City, Port Arthur Water Improvement Dist. has voted \$2,000,000 bonds. (Lately noted to vote.)

Tex., Riverside—School.—Riverside Independent School Dist.; registered \$50,000 of 5 per cent 40-yr. bonds.

Tex., San Marcos—School.—Hays County Commrs.; registered \$3000, \$3500 and \$3000 of 5 per cent 20-yr. bonds, dated Nov. 16, of Common School Dist. Nos. 14, 19 and 20.

Tex., Tyler.—Smith County Commrs.; registered \$450,000 of 5½ per cent bonds.

Tex., Tyler—Road.—Smith County Commrs., W. R. Castle, County Judge, sold \$270,000 of 5½ per cent semi-annual \$1000 denomination bonds, dated Apr. 10. (Lately noted inviting bids.)

Tex., Wichita Falls—School.—School Board; sold \$50,000 bonds.

Va., Galax—Street.—City; issue \$300,000 bonds. Address The Mayor.

Va., Hampton—School.—Elizabeth City County Supr., Clarence W. Robinson, Judge; vote on \$200,000 bonds of Wythe Dist.; plan voting on \$250 bonds of Phoebus and Hampton Dist.

Va., Norfolk—Water.—City, C. E. Ashburner, Mgr.; bids on \$4,000,000 bonds.

Financial Notes.

D. C., Washington.—Northwest Savings Bank; increased capital stock from \$50,000 to \$75,000.

Fla., West Palm Beach.—Palm Beach Guaranty Co. of West Palm Beach; increase capital from \$150,000 to \$500,000.

Ky., Bowling Green.—Citizens' National Bank; increased capital from \$120,000 to \$250,000.

Ky., Covington.—Acme Perpetual Building and Loan Assn., Jos. Rettig, Prest.; increased capital from \$40,000 to \$500,000.

Miss., Meridian.—Guaranty Bank & Trust Co. will increase capital from \$50,000 to \$100,000.

N. C., Northampton.—Bank of Potocasi; increased capital from \$10,000 to \$25,000.

Va., Appalachia.—People's Bank of Appalachia; increased capital from \$25,000 to \$50,000.

Va., Woodstock.—Shenandoah National Bank of Woodstock; increased capital from \$5000 to \$25,000.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

PROPOSALS

BOND ISSUES
BUILDINGS
PAVING
GOOD ROADS

Bids close December 22, 1920.

TREASURY DEPARTMENT. Supervising Architect's Office, Washington, D. C., December 4, 1920. Sealed proposals will be opened in this office at 3 P. M. December 22, 1920, for the mechanical equipment for hospital building Unit E-F, boiler-house, kitchen and laundry building, changes and additions in Unit D and in the house for the officer in charge. Electric conduit and wiring in the tunnels connecting Units A, B, C, D, and E-F. Also the removal of certain plumbing in Units B and C, and the extension of the outside lighting and power feeders of the United States Public Health Service Hospital No. 32, at 2650 Wisconsin Avenue, Washington, D. C. Drawings and specifications may be obtained from the Office of the Supervising Architect, JAS. A. WETMORE, Acting Supervising Architect.

Bids close January 3, 1921.

TREASURY DEPARTMENT. Supervising Architect's Office, Washington, D. C., December 1, 1920. Sealed proposals will be opened in this office at 3 P. M. January 3, 1921, for New Hot-water Piping, etc., in the United States Mint, Philadelphia, Pa., in accordance with specification and drawing, copies of which may be had at this office or at the office of the Custodian, Philadelphia, Pa., in the discretion of the Supervising Architect, JAS. A. WETMORE, Acting Supervising Architect.

Bids close December 28, 1920.

TREASURY DEPARTMENT. Supervising Architect's Office, Washington, D. C., December 3, 1920. Sealed proposals will be received at this office until 3 P. M. December 28, 1920, and then opened, for New Mezzanine Floor, etc., in the United States Postoffice, Charleston, W. Va., in accordance with the specification and drawings mentioned therein, copies of which may be had at this office or at the office of the Custodian, in the discretion of the Supervising Architect, JAS. A. WETMORE, Acting Supervising Architect.

Bids close December 27, 1920.

SEALED PROPOSALS will be received until 2 o'clock P. M. December 27, 1920, at the office of the Constructing Quartermaster, Langley Field, Hampton, Va., and then opened, for additional construction and alterations of Dirigible Balloon Hangars at Langley Field. Plans and specifications obtainable at the office of the Constructing Quartermaster, Langley Field, Va. Ten dollars deposit required for plans and specifications.

Bids close December 15, 1920.

OFFICE OF THE CONSTRUCTING QUARTERMASTER. Aberdeen Proving Ground, Maryland. Sealed proposals will be received at this office until 10 A. M. December 15, 1920, and then opened, for the repairing and painting of portions of the roof of Temporary Artillery Storage Warehouse No. 12. This work comprises the replacing of approximately 14,940 square feet corrugated iron with new galvanized iron and the painting of approximately 25,700 square feet of this roof, both sides. Specifications may be obtained at the office of the Constructing Quartermaster, Aberdeen Proving Ground, Maryland.

Bids close December 22, 1920.

PROPOSALS FOR FURNISHING SOUTHERN Yellow-pine Lumber, Doors, Windows, Hardware, etc. Office Mississippi River Commission 1st and 2d Districts, Custom-house, Memphis, Tenn. Sealed proposals will be received here until 11 A. M. December 22, 1920, and then opened, for furnishing and delivering Southern yellow-pine lumber, doors, windows, hardware, etc. Further information on application.

Bids close December 15, 1920.

PROPOSALS FOR HYDRAULIC TURBINE. U. S. Engineer Office, Florence, Ala. Sealed proposals will be received here until December 15, 1920, and then opened, for furnishing and delivering one (1) Hydraulic Turbine of 1000 horse-power capacity, with governor. Further information on application.

Bids close December 23, 1920.

PROPOSALS FOR OIL-HANDLING PUMP, Chain, Wrought-iron Pipe, Pipefittings, Valves, Water-closet Tanks, Steam Traps, Wire Netting, Glass, Hose, Rattan Brooms, Scrub Brushes, Extension Ladders, Caning, Fiber Mats, Leather Belting, Leather Belt Lacing, Rubber Tires, Duck, Signal Flags, Towels, Toweling, Thread, Drinking Glasses, Aluminum Ware, Salt and Pepper Shakers, Silverware, Asphalt and Lumber. Sealed proposals will be received at the Office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10.30 o'clock A. M. December 23, 1920, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and information relating to this Circular (1425) may be obtained from this office or the offices of the Assistant Purchasing Agent, 24 State Street, New York City; 606 Common Street, New Orleans, La., and Fort Mason, San Francisco, Cal.; also from the United States Engineer Offices in the principal cities throughout the United States.—A. L. FLINT, General Purchasing Officer.

Bids close January 10, 1921.

\$400,000 4½% Dock and Belt Railroad Improvement Bonds
PRINCIPAL AND INTEREST PAYABLE IN GOLD.
Pensacola, Fla.

Sealed bids will be received by the Board of Commissioners of the City of Pensacola, Florida, from December 2, 1920, to 12 o'clock noon of January 10, 1921, for all or any part of the City of Pensacola \$400,000 4½ per cent dock and belt railroad improvement bonds for delivery to purchasers February 1, 1921. Said bonds being thirty-year bonds, dated January 1, 1920. Copy of opinion of John C. Thomson, Attorney, New York, will be furnished successful bidder.

Bids must be on form of proposal furnished by the City of Pensacola.
The right is reserved to reject any or all bids.

For further particulars address the United States Mortgage & Trust Company, 55 Cedar Street, New York, N. Y., or the undersigned.
F. D. SANDERS,
Mayor, City of Pensacola.

Attest:
L. E. HEINBERG,
City Clerk.

Bids close December 21, 1920.

\$190,000 Municipal Improvement Bonds

South Jacksonville, Fla.
City Council will open bids at City Hall evening of December 21, 1920.

Bonds to be sold will be denomination of \$1000 each, dated November 1, 1920, and payable February 1, A. D. 1950.

Present bonded indebtedness, \$125,000.
Value of property assessments, real and personal, for year 1920, \$4,607,780.
R. M. WAGNER, City Clerk.

Bids close January 6, 1921.

\$100,000 5% School Bonds

Sealed bids will be received by the Rome City Commission until 7.30 o'clock P. M. on Thursday, January 6, 1921, for One Hundred Thousand Dollars (\$100,000) of Public School Improvement Bonds of the City of Rome, Georgia, of the denomination of one Thousand Dollars (\$1000) each, and bearing interest at the rate of five per cent. (5%) per annum, payable semi-annually. Five of said bonds payable at the expiration of ten years from date of issue, and ninety-five of said bonds payable five each succeeding twelve months, as per consecutive numbers. Bids will be received for all of said issue or for any part thereof. The Commission reserves the right to reject any or all bids. Each bid must be accompanied by a certified check for one thousand dollars (\$1000) as a guarantee of good faith. Bids may be sent to either of the undersigned.

ISAAC MAY, Chairman,
Rome, Georgia.
S. F. MAGRUDER, Secretary,
Rome, Georgia.

Bids close December 15, 1920.

\$65,000 6% School Bonds

Morehead City, N. C.

The Board of Graded School Trustees of the Morehead City Graded School District of Morehead City, Carteret County, N. C., will receive sealed proposals, addressed to the undersigned, until 12 o'clock M. Wednesday, December 15, 1920, at which time the bids will be read at a public meeting of said Board at the City Hall, Morehead City, N. C., and sale made; denomination one thousand (\$1000) dollars, principal and semi-annual interest payable in New York, in lawful money of the United States; coupon bonds bearing interest at the rate of six (6%) per cent. per annum, and maturing December 15, 1950, being thirty years from the date of issue. The bonds are general obligation of said Graded School District, and an unlimited tax for the payment of the principal and interest has been authorized by law and ordinance. This issue is authorized by special act of the General Assembly of the State of North Carolina, ratified August 24, 1920, known as House Bill 280 and Senate Bill 322, and by the authority of the vote of the qualified voters in said Graded School District at an election held Tuesday, November 2, 1920.

Bids must be enclosed in sealed envelope marked "Proposals for Bonds."

Bidders must deposit with the undersigned before making bids, or present with their bids, certified check, payable to the order of the undersigned, upon an incorporated bank or trust company for two thousand (\$2000) dollars, or the same amount in cash, to secure the said Graded School District against any loss resulting from the failure of the bidder to comply with the terms of his bid. The bonds are expected to be ready for delivery on the date of the sale, but may be delivered in New York on or before January 1, 1921, and must be paid for by that time. The right to reject any and all bids is reserved.
This November 12, 1920.

C. S. WALLACE, Chairman.

Bids close December 13, 1920.

Steel Bridges

Sealed proposals addressed to County Judge of Nacogdoches County for the improvement of certain highways in Nacogdoches County will be received at the office of County Judge of Nacogdoches County, Texas, until 10 o'clock A. M. December 13, 1920, and then publicly opened and read.

DESCRIPTION OF WORK TO BE DONE AND APPROXIMATE QUANTITIES CONTAINED IN IMPROVEMENT.

Steel bridges, complete, in place, with the following quantities:
Wet excavation, 1360 cubic yards.
Dry excavation, 1360 cubic yards.
Reinforcing steel, 167,141 pounds.
Structural steel, 983,667 pounds.
Concrete A and B, 2930 cubic yards.
Pipe hand rail, 4622 linear feet.
F. B. M. flooring, 68,000 feet.

Detailed plans and specifications of the work may be seen for examination and information may be obtained at the office of Lamar Acker, Engineer, at Nacogdoches, Texas, and at the office of the State Highway Department, State Office Building, Austin, Texas.

A certified check for Ten Thousand Dollars made payable without recourse to the order of J. M. Marshall, County Judge of Nacogdoches County, on local bank must accompany each proposal as a guarantee that the bidder if successful will enter into contract and make bond in accordance with requirements of the specifications. The right is reserved by the party of the first part to reject any and all proposals or to waive all technicalities.

Proposals shall be submitted in sealed envelopes and marked "Bids for the erection of Steel Bridges in Nacogdoches County." Money on hand in local bank to pay for same on Engineer's estimate and completion of projects.

For further information address
I. D. PARMLEY,
County Clerk, Nacogdoches County,
Nacogdoches, Texas.

Bids close January 6, 1921.

Miami River Bridge

AT AVENUE G, MIAMI, FLORIDA.

Sealed proposals, to be filed with the city clerk, will be received by the City of Miami, Florida, up to 7.30 P. M. January 6, 1921, for the construction of a bridge over the Miami River at Avenue G. The bridge is a double-leaf steel bascule span with piers and embankment approaches. The clear span is 115 feet; the total length of improvement 495 feet. One 30-foot roadway; two 6-foot walks. Reinforced concrete bascule piers and retaining walls.

Bids upon a lump-sum basis and also upon a cost-plus-a-fee basis will be considered. With each bid there shall be a certified check for at least 10 per cent. of the bid, made payable to the city treasurer; this check will be forfeited as liquidated damages by the bidder if he is awarded the contract but fails promptly to execute contract and bond, or will be returned to him upon such execution. Checks of other

bidders will be returned promptly. The contract will be awarded to the lowest competent, responsible bidder, but the city may reject any or all bids, adopt either form of bid and waive informalities.

Plans and specifications may be examined in the offices of Chas. W. Murray, city engineer, Miami, Fla., and of Harrington, Howard & Ash, consulting engineers, at Jacksonville, Fla., and 1912 Baltimore Avenue, Kansas City, Mo. Copies may be secured from the consulting engineers at Kansas City by depositing \$25. Such copies shall be returned and refund of \$20 made.

Bids close January 3, 1921.

Brick School Building

Rosedale, Miss.

The Trustees of the Rosedale Consolidated School, Rosedale, Mississippi, invite sealed proposals to erect and complete a brick school building, to be located in the Town of Rosedale, Mississippi, as per the plans and specifications prepared by Alsop & Callanan,

Architects; Sieg & Mandeville, Associates, of 764 Randolph Building, Memphis, Tennessee. Proposals must be signed by the bidders and left before 2 P. M. on the third day of January, 1921, with Mr. George McGee, Chairman Board of Trustees, Rosedale, Miss., with a certified check of \$1000, made payable to the Board of Trustees, and made in good faith that the proposal will be carried out.

The successful bidder will be required to make bond in amount of 100 per cent. of the contract price, to be made through some bonding company that is authorized to do business in the State of Mississippi, and must be made within ten days from date of awarding contract.

Payments will be made from the first to tenth of each month in the amount of 90 per cent. of the work on the building and materials on the job.

A deposit of \$25 will be required for a set of plans and specifications, which can be obtained from the architects, said amount to be refunded when drawings are returned in good order with bid on work.

GEORGE MCGEE,
Chairman Board of Trustees.



CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS, WATER POWERS, MISCELLANEOUS PROPERTIES

BONA-FIDE PURCHASERS in the market for coal lands, leases or going mines in Eastern Kentucky and West Virginia, or for oil and gas leases in either the Eastern or Western Kentucky oil fields within producing area, or production itself, will be given an opportunity to procure same upon dividend-paying basis. Only properties offered that will bear every inspection and at actual market prices—not inflated prices. N. P. Howard, Lexington, Ky.

I MAKE A SPECIALTY of leases, royalties, production, coal and timber lands and fluorspar properties in Kentucky. Have a fine tract of timber, with mills, etc. Also handle leases in Texas and Louisiana. E. D. Watkins, Oil Producer, Irvine, Ky.

WATERPOWER

FOR SALE—The easiest developed and best water in Virginia, on the James River, 54 miles west of Lynchburg, on the C. & O. R. R.; 50 to 100 acres of land at this place go with the water-power, for a manufacturing site. This is a most ideal place for a number of cotton mills; fine climate, good water and cheap living; plenty of native help in this territory—Scotch-Irish and Pennsylvania Dutch ancestry. Can raise \$100,000 stock for a cotton mill, if good mill people will start the mill. Jasper Miller, Springwood, Va.

ZINC PROPERTY

FLUORSPAR AND ZINC properties for sale or lease, including some developed, equipped and producing mines. Also have a few Kentucky oil leases. C. W. Haynes, Marion, Ky.

TALC DEPOSIT

A LARGE DEPOSIT of fine commercial talc on railroad can be obtained on most reasonable terms. S. P. McConnell, Carthage, North Carolina.

CLAY PROPERTIES

LARGE BRICK CLAY PROPERTY. Favorably located directly on railroad and on bricked highway, eight miles west of Newbern, N. C.; adapted for high-grade brick, tile and other clay products. Has been examined and recommended by an eminent engineer as being unusually meritorious. Report will be furnished to interested parties. Owner will accept part payment in securities of properly financed and managed company. Thomas B. Hammer, Owner, Philadelphia, Pa.

OIL LANDS AND LEASES

FOR A FINE INVESTMENT BUY AN OIL LEASE IN GOOD TERRITORY. We have leases in the Big Bend and Trans-Pecos sections of Southwest Texas, where geologists say the prospects for oil and gas are the best. These leases were selected in the most favorable territory one year ago. Small tracts, \$5 per acre; half sections, 320 acres, \$250 per acre. Write Drawer 10, Irvine, Ky.

RATES AND CONDITIONS

Rate 80 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. *When the advertisement contains a number of long words, proper allowance should be made.* Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c. per line; 300 lines, 26c. per line; 500 lines or more, 25c. per line.

COAL AND TIMBER LAND

COAL AND TIMBER LAND in Tennessee, 35,000 acres, with three seams, ranging 4 to 12 feet thick. Best coking coal in country; conditions such can be mined by drifting and at less expense than any other section, and located where distribution is unsurpassed. Also 2000 to 3500 feet merchantable saw timber per acre. Land fine for agriculture when cleared. Price in fee, \$20 per acre; titles first-class. Terms can be arranged with responsible parties. This is an exceptional property. W. R. Power, 329 City Bank Building, Mobile, Ala.

TIMBER OPERATION

FOR SALE—Lumber milling proposition, complete equipment, now in operation. Eastern Carolina; 25,000,000 feet timber; plenty more available; big bargain; \$175,000, half cash, balance terms. Address No. 5700, care Manufacturers Record, Balto., Md.

TIMBER

CEDAR POLES.

FOR SALE—Fifty-six Cedar Poles, 30 feet long, 6 inches top. Can be cut and split into fence posts. Absolutely sound and never used. At only \$6 each for the lot f. o. b. cars our plant, East Buffalo, N. Y.

THE LIVE POULTRY TRANSIT CO.
343 South Dearborn St.,
Chicago, Ill.

HAVE FOUR (4) CARLOADS OF
Choice Holly Logs for Sale.
Address: The Quaker Oats Co.,
Foxworth, Miss.

LATH AND TOBACCO STAVE TIMBER.
FOR SALE—10,000 to 15,000 cords standing timber on N. S. R. R. near Newbern, N. C. Will sell by the cord with cash advance. Fine opportunity for laths or tobacco stave factories. Thos. B. Hammer, Philadelphia, Pa.

LUMBER AND BUILDING MATERIALS

WHEN in need of flooring, ceiling, siding, finish, roofers, lath and shingles, write Stephens Lumber Co., Jacksonville, Fla., or 50 E. 42d St., New York.

WHEN NEEDING lumber and shingles, straight or mixed cars; pine, cypress, hardwood, cedar or redwood, wire us. Extra star cedars, transits \$5.20 delivered. Louisiana Lumber & Shingle Co., Dallas, Texas.

TIMBER LANDS WANTED

WANTED—Timber lands and income properties. Any size, anywhere. Write Chas. A. Philidius, 510 East 120th Street, New York.

TIMBER LAND

FOR SALE—Approximately 10,000 acres timbered land in South Georgia that will cut approximately 50,000,000 feet sawmill timber, of which approximately 20,000,000 feet is pine, 10,000,000 cypress and 10,000,000 red gum, white oak, red oak and hickory. This tract commences within three miles of a main-line railroad. Price \$25 per acre in fee-simple. This is all original timber and is high-class timber. Work quick if interested. John M. Cox, Waycross, Ga.

FOR SALE—255 acres river bottom timber land; estimated 12,000 ties; one-fourth mile from town; railroad passes through one corner; fine farming land; no improvements. Terms one-fourth cash, balance one, two and three years, 6 per cent., lien retained. Apply to W. S. Duvall, Paris, Tenn.

TIMBER FOR SALE—5000 acres virgin timber; will cut high-grade stock 50,000,000 feet; 50% oak, 45% pine, balance poplar and chestnut; natural logging conditions fine; near through railway to seaboard; A1 proposition for band mill. Price and terms reasonable. Arrange to see it soon. T. M. Fry, Princeton, Va. Va.

FOR SALE—2500 acres, tract timber land in Western North Carolina, consisting of oak, chestnut, basswood, hickory and other timbers; also about 40,000 cords acid wood bringing \$11 per cord, and 3900 cords tan bark bringing \$22.50 per cord. The land is very finest grass land. Price, \$16 per acre, or timber rights only, \$11 per acre. L. A. Weems, 7922 St. Charles Ave., New Orleans, La.

FARM AND TIMBER LAND

FOR SALE.

5000 acres Georgia timber and grazing land; railroad through property; depot on land; 20,000,000 timber; free and clear perfect title; 75 miles north Jacksonville, Fla.

A. F. WILLIAMS,
Owner.

166 W. Adams St., Chicago, Ill.

329 ACRES FOR SALE CHEAP, direct by owner; 50 acres cultivated, balance timber; 6-room dwelling, large barn; 2½ miles from river landing, P. O. churches, schools, etc. H. R. Dudley, 1805 Willoughby Ave., Norfolk, Va.

FARM AND TIMBER LAND

FOR SALE—Florida lands and timber; 30,000 and odd acres good virgin pine timber; location, So. Florida, on and near R. R. Rare bargain; only \$9 per acre; fee-simple; also 40,000 and odd acres choice virgin pine timber, only \$12.50 per acre fee simple; 2120 acres, mostly under good pasture; fence; extra choice for stock purposes; large percentage good quality truck and farm land; some fine citrus fruit and settlement land. Price \$15,500.

1920 acres nearly the above; general purpose land; large barn and wagon shed; several small houses. Price \$12,500.

2120 acres, 3 to 4 miles from R. R.; very best quality of pine land (extra fine timber now being removed); joining and near by are many good groves and farms to prove quality of soil. This is dirt cheap at \$20 per acre wholesale. My price, only \$12.50 per acre. These last three offerings are well located in good portion of Soto County, Fla., with first-class people owning large and small tracts joining and in every direction.

45,000 acres admirably located, near large Florida county-seat town; 3 good R. R.'s through tract; near river; good general-purpose farming and truck land; good for colony; extra fine for stock ranch; \$3.50 per acre; one-third cash; balance 6 and 12 months. Some extra choice money-making heavy-bearing groves, well located, with plenty of extra land for farm and stock; also some of the best quality of well-drained muck land in the State; only 1½ miles of R. R.; \$130 per acre. L. M. Hughes, Owner's Representative, Box 111, Limestone, Fla.

SOUTHERN HOMES

COTTAGE on Clearwater Beach, facing Gulf; furnished; all modern conveniences; four rooms and sleeping porch upstairs; living-room, dining-room, kitchen, servants' room and large porch downstairs. Also, large garage. Price \$10,000. J. A. Crenshaw, 311 Seventh Ave., Tampa, Fla.

FRUIT, FARM AND TRUCK LANDS

DISTRICT OF COLUMBIA
GENTLEMAN'S COUNTRY
ESTATE BARGAIN.

Beautiful colonial center-hall type house. First floor—Living-room, music-room, library, dining-room, butler's pantry, kitchen and extra lavatory. Second floor—Five master bedrooms, two tiled baths. Six open fireplaces; large double porches on two sides; hot-water heat; hardwood floors; gas; electricity; 10 acres; lawn, tennis courts; rose garden; kitchen garden; garage for three cars; chauffeur's quarters; stable; chicken-house; carriage-house; 100 fruit trees; grape arbor; wonderful trees and shrubbery hedges. Thirty minutes to Treasury by trolley; 20 minutes by automobile over macadam roads.

Liberal terms if desired.
Will consider an exchange.
O. B. ZANTZINGER,
Washington, D. C.

FLORIDA

450-ACRE PLANTATION, located in best section of State, completely equipped with stock, tractors, automobiles, farming implements, dwelling-houses and barns, for sale at a big sacrifice on account of owner's ill-health. For full information address Post-office Box 594, Jacksonville, Fla.

LAND.—70,000 acres, Florida, on railroad; no overflow; rich soil; best colonization tract in South; \$3 per acre. No. 5727, care Manufacturers Record, Baltimore, Md.

7160 A. AGRICULTURAL LAND, 34 miles R. R. town near Florida west coast, 15 miles to good Gulf shipping point; under timber and turpentine contract to Dec. 31, 1924; lessee pays all taxes to that date. An exceptional bargain at \$5 per acre. A. M. Fricworth, 270 Ponce de Leon Ave., Atlanta, Ga.

FOR SALE—75-acre farm, 20 acres of orange grove, 20 acres pecan grove, just beginning to bear; orange crop estimated this year at 1800 boxes; eight-room dwelling, four-room tenant-house, necessary out-buildings; situated four miles from small town on main line of Seaboard Railway, with mail deliveries at gate each day. Price \$13,000, including mule, cows, hogs and chickens. If bought at once, buyer will get this year's orange crop. Easy terms. J. D. White, Micanopy, Fla.

FLORIDA

FOR SALE—40-acre tract of land, 5 miles from the Courthouse, 1½ miles from West Tampa; five-acre orange grove on tract; one-half old trees and bearing; one-half trees from one to four years old; on brick-paved road; no improvements on tract except orange grove. Price \$8500. J. A. Crenshaw, 311 Seventh Ave., Tampa, Fla.

SUGAR AND RICE LANDS in Cape Sable region, Florida. Two crops of rice a year. W. W. Dewhurst, St. Augustine, Fla.

FOR SALE—An up-to-date truck and stock farm in Florida's best county; 440 acres in tract, 175 to 200 acres in excellent pasture; will keep 200 head cattle ten months in the year; 150 to 175 acres under cultivation; fine soil for trucking; eight tenant-houses, five-room cottage, good large barn and silo; railroad through edge of place with side-track right at the lot; \$40 per acre, including all farm implements; easy terms. J. D. White, Micanopy, Fla.

FOR SALE—A dandy farm of 220 acres, good rich soil, fine for trucking or general farming; 180 acres under cultivation, bordering on lake; 30 acres in orange grove; good six-room dwelling, three tenant-houses, in three miles of small town with high school; two side tracks on place. Price \$19,000, very easy terms. J. D. White, Micanopy, Fla.

COME TO FLORIDA, where it's "summer time in the winter time and pleasant all the year 'round." Send for booklet, "Largest Orange Tree in the World," and list of groves and farms. Tampa-West Coast Realty Co., Tampa, Fla.

HONDURAS

300,000 ACRES SPANISH HONDURAS.—Solid body, grass two to six feet high, green all year; abundance running water; 2 crops yearly; richest land in the world; temperature 60 to 75; no land taxes; 10,000 acres under rock fence; only \$2 per acre. W. L. Archibald, 826 Malson Blanche Bldg., New Orleans, La.

KENTUCKY

FINE RICH LEVEL FARM of 256 acres, good improvements, on two public roads; splendid fences; all necessary outbuildings; plenty stock tools; tractor, hay, oats and corn; flock of sheep, lot of cattle, hogs, automobile; fine spring, fish pond; never-failing well; pump and engine.

The personal property is worth at least \$5000, and owner has refused \$185 per acre for land alone. Walkout deal, \$30,000. One-third cash, balance one, two, three, four and five years. R. M. Amos, Agt., Olmstead, Ky.

LOUISIANA

SUGAR LAND, Louisiana, 4500 acres, 44 miles west of New Orleans. Write to Wm. Rampe, Ottawa, Ohio.

MARYLAND

MARYLAND FARMS.—Water-front estates, homes, farms and game preserves on the Eastern and Western Shore of the Chesapeake Bay and its tributaries; timber tracts, stock, dairy, truck, poultry and fruit farms. Cat. rep. 21 counties upon request. Chas. H. Helntzeman, Real Estate Broker, 908 South Charles St., Baltimore, Md.

NORTH CAROLINA

OPPORTUNITY IN A LIFETIME to buy ideal country home farm. Write "Brower," Mt. Airy, N. C.

TENNESSEE

FOR SALE—185 acres of good productive land; 30 acres in timber; balance in cultivation; 8 miles from town on R. F. D.; 1 mile from high school; ¼ mile from good church; good roads; good neighborhood. J. W. McClellan, Jackson, Tenn., R. 1.

TEXAS

GOOD SOUTHERN BUYS.

For Sale—Stock ranches in Texas, improved or unimproved, with or without stock. Sugar and cotton plantations in Louisiana and East Texas.

Timber propositions in both hardwoods and pine, with or without purchase of lands, mills and milleries; located well with respect to transportation.

Beaumont manufacturing sites, business locations and leases.

Will be pleased to write you concerning anything regarding the above or that about which you wish to know concerning this section of the country. G. E. Moon, Box 362, Beaumont, Texas.

TEXAS

TEXAS PROPERTY WANTED.—Would like to hear from owners and brokers having for sale large tracts oil, timber and ranch lands. Cash buyers waiting. Also have \$2,000,000 Chicago apartment clear to exchange for land. Get in touch with us at once. Albert H. Kopp & Co., Bradford, Illinois.

TEXAS RANCH.

240,000 acres in solid body; 90 per cent. suitable for agricultural purposes; well located; an abundance of good water; fine colonization proposition. Price, \$12.50 per acre. Good terms. We are instructed to deal only with parties able to buy.

UNITED STATES LOAN & INVESTMENT COMPANY.
PRAETORIAN BLDG.,
WACO, TEXAS.

VIRGINIA

NEW 60-PAGE FARM CATALOGUE just out. Farms, all classes. Northern Virginia Bluegrass section, near the National Capital. Mailed on request. Buell Farm Agency, Herndon, Va.

VIRGINIA.—Mild winters; ideal climate.

Large and small farms.

"Your friends in the land."

Holland Bros., 251 Arcade, Norfolk, Va.

INCORPORATING COMPANIES

INCORPORATE under the liberal laws of Maryland; \$100,000 charter stock certificates, minute book, and also details of complete organization handled by experts for \$33. The Corporation Company, Department C, Box 440, Baltimore, Md.

FINANCIAL

"THE BETRAYAL OF THE PEOPLE IN THE FEDERAL RESERVE ACT." The passing of the false gold standard fully explained. The remedy. Popular edition, 25 cents. The Monetary Educational Bureau, 1416 F St., Washington, D. C.

FINANCIAL CONNECTION.—Two experienced, successful, well-rated bankers in Dallas, Tex., desire connection with established firm as Texas or Southwestern representative. Handle bonds, loans, mortgages, notes, etc. References. Address Financial, 515 Praetorian Bldg., Dallas, Tex.

BUSINESS OPPORTUNITIES

WANTED—Partner with \$100,000 cash or negotiable credit to become associated with Southern wholesale lumberman as active treasurer and in full charge of finances; owner handicapped account of ready money; can guarantee over \$35,000 yearly profits with past record as guide. Owner wants to get away from worry of finances and give his entire time to buying and selling end of business. Business and owner has absolutely clean record. Can show merits to prospective partner. Address No. 5725, care Manufacturers Record, Balto., Md.

MINING OPPORTUNITY. Large property owned in fee, developed extensively and thoroughly at heavy expense; location on railroad; over a million dollars of ore "in sight," with indications of much larger quantity; ready sale of product (BARYTES); have shipped a good many cars giving satisfaction. For sale, lease or promotion. All ready for installation of adequate machinery for heavy production and large profits. Cannot be handled with less than \$25,000. No. 5722, care Manufacturers Record, Balto.

FOR SALE—Several good money-making inventions which I will sell outright for cash. Anyone wishing to buy, or any information, address James B. Bradley, Box 1230, Miami, Fla.

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